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2d Artist

Concept Art, Digital & Matte Painting Magazine

the Mighty Conan

We delve into the world of legendary artist, Brom and find out a little about his new book, "The Devil Rose"



ARTICLES

Sketchbook of WanKok Leong & Sketch Theatre



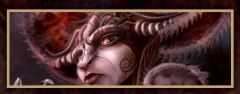
INTERVIEWS

Brom & Jesse van Dijk



THE GALLERY

Chen Lin, Yap Kun Rong & Andreas Rocha, plus more!



MAKING OFS

The Mantis Queen by Nick Miles



TUTORIALS

NEW Painting Series! The Human Face: Part 1 – Eyes & Ears, plus more!



EDITORIAL

Welcome to Issue 034! Our thanks of course go to the Hadron colliding scientists in Geneva for not yet spinning us into a black hole, allowing us to bring you yet another issue filled with digital goodness! Woop! And without any more guff, I'd like to announce – whilst doing a little dance in my chair – that we have an interview this month with the one and only **Brom**! Hurraaaaay! I have been waiting so long for this, and now it's finally here! … In all honesty, I actually tend to be a little awestruck when I speak to Brom over email, and probably say really silly things in my eagerness to not seem like a drivelling fool, but he's been very supportive of this interview for 2DArtist and we salute him, as I'm sure you will also when you check out the fab interview with this icon on **PAGE 004**. Enjoy! And because one interview is never quite enough, and in the interest of diversity, we bring you yet another this month – this time with Concept Artist, **Jesse van Dijk [PAGE 015]**! Jesse's portfolio is simply awe-inspiring, and if you've already been lucky enough to see his works on Concept Art.org, then you'll love this 13-page interview with the very man who causes us to "Wow!" whenever we see one of his artworks! As a special treat we also have an interview with the amazing **Sketch Theatre** on **PAGE 051**. We don't often have studio interviews in 2DArtist, but we've been so impressed by what we've seen from these guys that we couldn't resist featuring an article on them. Hope you like!

Our tutorials this month feature Part 4 of **Chee Ming Wong**'s Space Painting Tutorial Series **[PAGE 096]**, plus our regular Speed Painting Tutorial featuring both **Richard Tilbury** and **Levente Peterffy**. Levente teaches us an extraordinary technique which even I can't wait to try out, so be sure to check out both our speed painting instalments on **PAGE 085**. A new tutorial feature this month is by **Nykolai Aleksander**, who brings us part one of a small series on The Human Face. This month she talks us through the process of how to digitally paint eyes and ears, in the truly beautiful way that she has developed in her artworks. I'm always looking forward to Nykolai's next great artwork, and she certainly impresses us this month with this great little article on **PAGE 109** – I hope you'll get a lot from it! **Nick Miles** has also put together a fantastic Making Of article for us on the creation of recent gallery image, The Mantis Queen, on **PAGE 121**, and you'll find a great Sketchbook feature on the works of **WanKok Leong** on **PAGE 029**. As always we have 10 great gallery images, plus the results of our regular Stylised Challenge over on Concept Art.org; which, by the way, I hope to see more of you entering in the coming months as we have lots of great topics coming up! *Winks*

Right, well enjoy October's Issue, have a happy Halloween, and see you next month for plenty of bonfires and fireworks (you've gotta love this time of year, haven't you?). Cheers! **ED.**

.

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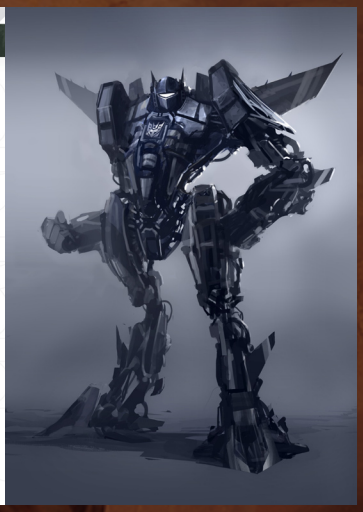




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2. Go to the VIEW menu, then PAGE DISPLAY;
3. Select TWO-UP CONTINUOUS, making sure that SHOW COVER PAGE is also selected.

CONTRIBUTING ARTISTS

Every month, many artists from around the world contribute to 3DCreative & 2DArtist magazines. Here you can find out all about them! If you would like to be a part of 3DCreative or 2DArtist magazines, please contact: lynette@zoopublishing.com



Brom



Painter of anything that is nasty and bites, Brom has worked in all facets of the creative industries. From books, to games, to film, he has been spewing out his own brand of deviltry for the last twenty years. Most recently Brom has turned his hand to writing a series of illustrated novels: “The Plucker”, a twisted children’s book for adults, and “The Devil’s Rose”, a romantic western set in Hell.

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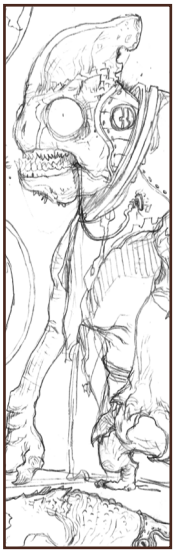
Jesse van Dijk

Concept Artist and Production Designer from Amsterdam, the Netherlands, with over four years of industry experience. Immediately after receiving his Master’s degree in Industrial Design at the Delft University of Technology, he went to work in the games industry. He is currently a senior concept artist at W! Games, Amsterdam, and does freelance work as well.

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Leong Wan Kok



An award-winning illustrator, specialising in character design and illustration. His work can be seen in various media, including art prints, illustrations, posters and comics, and he boasts a client list from both local areas and overseas. Sculpting is also one of his great passions!

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Nykolai Aleksander

Born in 1978, Nykolai spent the first 17 years of her life in Germany, then moved to England to study A-Level Theatre and Music. She returned to Germany for a short while after, working on films as a set assistant, and in 1999 moved to the UK for good. In 2000, Nykolai started drawing. With the discovery of a Wacom tablet in 2002, her work suddenly took off on a path she hadn’t quite expected…

http://www.admemento.com

x@admemento.com





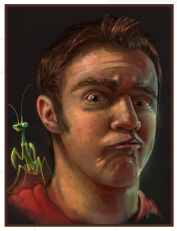
Richard Tilbury



Richard has had a passion for drawing since being a couple of feet tall. He studied Fine Art & was eventually led into the realm of computers several years ago. His brushes have slowly been dissolving in white spirit since the late nineties & now, alas, his graphics tablet has become their successor. He still sketches regularly & now balances his time between 2D & 3D, although drawing will always be closest to his heart.

http://www.richardtilburyart.com

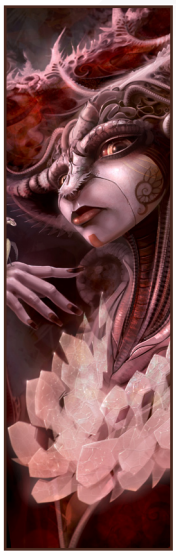
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Nick Miles

Started work as a concept artist in 2005 for Blitz Games; they gave him the chance he needed to break into the industry and he's been making the most of that chance ever since! He's been featured in several books, including Ballistic Publishing's Exposé series. He's currently working on an illustrated novel entitled "Exula". He loves what he does and wants to push it as far as he can!

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Felipe Fernández



Studied art in Montevideo, Uruguay. He then worked freelance in Barcelona in different media, from publicity to editorial to web. His current position is production/concept artist in the game industry, and he says that his future son's name will soon allow him to say, in booming voice, "I am your father!"

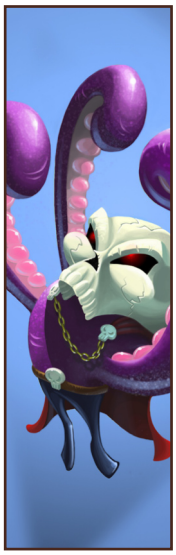
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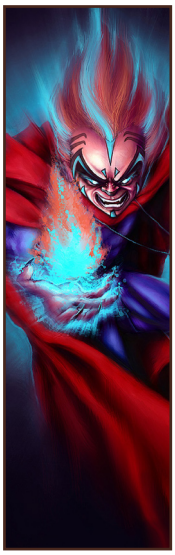


Ryan Slater

Ryan is currently a draftsman/photosimulator in Vancouver, Canada. With a background in classical animation he moonlights as a freelance artist, and is also in the midst of developing stories for children's books. Ryan's main goal is to put a smile on peoples' faces with his art, and hopes to accomplish this through whatever medium he can get his hands on!

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Raffy Dematawaran



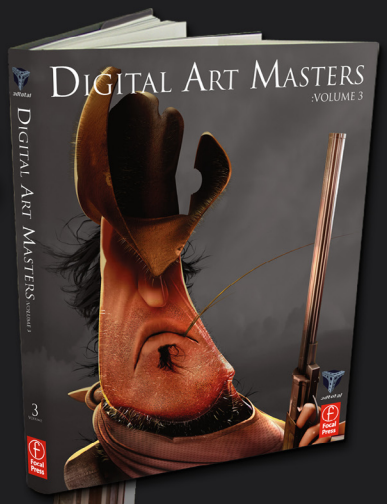
Raffy has been creating art and working in design professionally for over 15 years. His first freelance job started when he was still at college, at which time he was joining art competitions for the prizes and recognition, later realising that it was knowledge and experience that was far more rewarding! He rarely resists work offers now, whether major or minor projects, as long as he still has time to eat and sleep.

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Image by Jesse van Dijk

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Brom



"I work instinctively with colour. In other words, I don't really know what I'm doing right. Just what I'm doing wrong. So I usually put down a basic chromatic wash and work everything out of that. If you keep all the colours in a similar palette there's less chance of screwing up."

Brom's style has been described as "disturbing and dark" and has covered a multitude of mediums, from novels and role-playing, to comics and film. He has recently ventured into the realm of illustrated novels, where he combines his passion for narrative with his unique visions.

Brom



Your early years were somewhat nomadic compared to many people. Do you feel as though your exposure to different cultures has had much impact upon your artistic development and if so, what aspects of living abroad have had the most influence on your work?

Well, moving around certainly opens your mind up. I lived in Japan in my preschool years and I credit a barrage of Ultra-man and Manga for getting things going. But more than just a visual influence, being good at something helped me to be accepted when moving into a new school. It helped to fill the loneliness of adjusting to new places and people.



TSR will evoke happy memories amongst many people of your generation, and the countless hours over summer holidays spent indulging in fantasy worlds and role playing. What was the experience like for you as a full time artist?

I didn't know much about gaming when I started. To me working at TSR was primarily a chance to do fantasy art full time. I was in a studio with several top industry pros such as Clyde Caldwell, Jeff Easley, Fred Fields, and Robb Ruppel. Being able to learn the basics of the craft from so much experience was a real break. Also it was very competitive; I believe we pushed each other to do our best work. It was an incredible time of artistic growth for me.

What do you feel were the key lessons you learned during this period that have gone on to influence your work today?

Mostly it was the basics. Which paints to use, how to mix my medium, how to properly gesso a board, best brushes and so on. Little tricks that take a lifetime to learn on your own were there to be picked up.



Since becoming freelance you have ventured into the realm of comics, film and computer games. In what ways have these disciplines helped broaden your expertise as an artist?
More than anything, I seek out new ventures and experiences to keep art fresh. I find doing too much of any one thing to be creatively stifling. Writing is where I have been putting so much of my creative efforts of late. The learning curve is exciting. I find the writing and art really feed each other.



Do you see this collaboration between writing and painting as something which will continue in your future schedule from now on?
I hope so. I enjoy writing every bit as much as painting and the two complement each other so well.

Many of your characters have a very monochromatic treatment which helps lend them an abstract quality and boldness in your compositions, which is somewhat reminiscent of early Italian paintings - Piero Della Francesca come to mind. Where does this artistic device stem from?
It's a short cut. I work instinctively with colour. In other words, I don't really know what I'm doing right, just what I'm doing wrong. So I usually put down a basic chromatic wash and work everything out of that. If you keep all the colours in a similar palette there's less chance of screwing up.



How do you feel the advent of the digital medium has affected illustration and painting on the whole and do you find it as interesting as using actual paint?
There are trade-offs with both. What I would do for the flexibility and forgivable nature of digital techniques in my traditional! On the other hand, at this time, so many of the tools are very similar with digital, making it harder for digital artist to separate their individual styles. So I feel the digital programs have made illustration more generic overall, but this will change as the tools improve.







What is your favourite medium and why?

Oil because it is the most forgiving. It allows me to screw up all I want and keep going.

Do you always plan your compositions before starting to paint, or are there instances when you let the paint suggest some of the content?

I try to leave as much room for happy accidents as possible. Mostly I work out the basic proportions and outlines of images before starting, but then I leave as much of the environment and textures to happen in the paint as I can. The unpredictable is always more interesting than the conscious.

Your work has been described as “disturbing and dark”. Do you feel this is a fair comment and if so, where do you feel these roots lie?

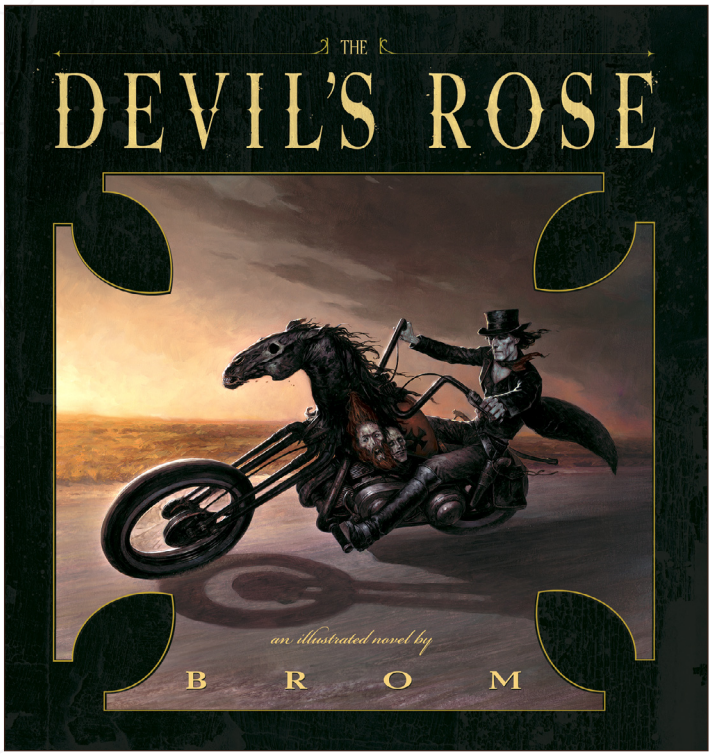
A very fair description. It’s who I am, what I do. Not a conscious effort, simply the aesthetic that I’m drawn to. There is inherent drama and conflict in death and dark things. A good example: if asked to paint a toaster I would be very bored, but if I were to be asked to paint a wicked toaster, then hey, I’m there.

The Devil's Rose is a recent publication and one that sounds like a rewarding project. What have been the best aspects about the project and your inspiration behind it?

That it is my vision (for better or for worse) - that I have full artistic control over every aspect, from the layout, to every word, to the paintings. As far as inspiration goes - my stories are usually written around what I wish to paint. In this case I had a yearning to paint undead gunslingers on motorcycles - I mean, come on, who doesn't?







BROM

For more work by this artist please visit:

http://www.BromArt.com

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Interviewed by: Richard Tilbury

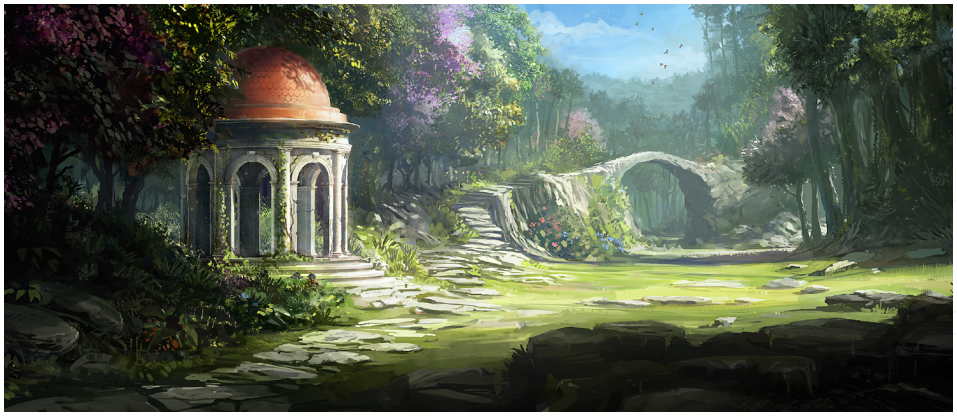

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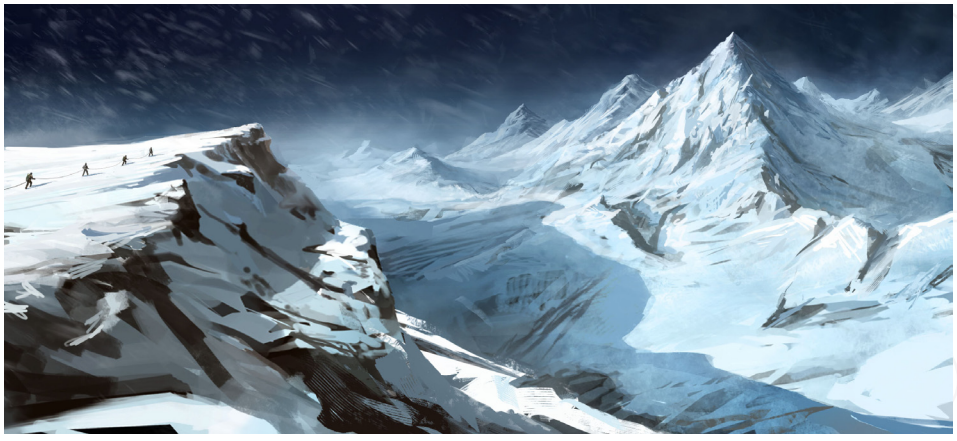


Jesse van Dijk is a concept artist with a passion for creating new worlds. Working at W!Games, he gets the chance to delve into every aspect of game design and has produced some truly breathtaking artwork. We recently took the opportunity to find out more about him and his approach to producing concept art ...



JESSE VAN DIJK





Hi Jesse. Now most artist that we interview talk about a moment during their childhood when they picked up a pencil/crayon for the first time, which sparked off an interest in art. Can you recall yours and also what was the image you drew?

Not really, I must admit. I was never particularly good at drawing as a child. Mostly I enjoyed building my own Transformers from Lego, but then, who didn't? It was only during university that I finally got some drawing classes. While I loved those, drawing and painting is still primarily a means to an end for me. It's the designing of worlds I'm really interested in. For me, painting digitally is an extremely fast way to feed ideas onto canvas. Should future technology allow for an even faster process, I would most likely embrace it. I enjoy painting very much, but it's not my primary objective.

So when you're fleshing out a new world, what are the primary things you tend to start off with, or does each one differ depending on the brief?

Up until now, I've worked on three long term studio IP's, and I started working on each of those by taking an essential but simple element of that world and visualising as many different interpretations of it as possible. Based on the feedback of the art director, designers, and writers you get an idea of where to take things. My experience is that working towards the first approved design (regardless of whether that's a vehicle, character, environment, etc) takes a lot longer than approved designs two, three and four combined. Getting it just right in the end can be very satisfying, and I think going through many iterations, especially at the start of a project, pretty much guarantees a more consistent overall world presentation.

After getting your Masters degree in Industrial Design, what lead you to pursue a career in games?

During my studies I spent a lot of time building single player levels for Doom and Quake 1. I





thought it was just such an incredible thrill to be able to walk around inside your own ideas, so to speak. It was then that I decided I wanted to "build worlds" for a living. I applied for a job as a level designer at Playlogic, a games studio in the Netherlands, and I was hired. However, it turned out I had been quite naive about the game industry; pretty soon after I started working there I found that a lot of the basic world design had shifted from the level designers to the concept artists. Thankfully my employer offered me a chance to do some concept work on one of the running projects, and after that I stuck to do creating concept art.



The majority of matte painters and illustrators tend to use certain 3D elements within their images to set up correct perspective, scale or to use it as a starting base. With your background in producing 3D levels, have you ever been tempted to mix the two mediums together?

I frequently do rough 3D setups for certain scenes. In general I'll use any trick I can think of to get my idea across; I have no reservations against





any techniques, like 3D, use of photos or references. It's the end result that counts for me. The goal of my work is to present ideas, and as to how I create the visuals, well that's not really important. For me personally, it's what differentiates me as a concept artist from an illustrator: I generate ideas, not pretty pictures.

You're currently working as senior concept artist/production artist for W!Games. Can you tell us how this job came about and what is an average day like working there?

Since I started at W!Games in 2006 I have been working on creating a new in-house intellectual property. The studio's first project, a horse riding game aimed at young girls, was being produced as I was creating the first concept art for the new IP. The studio has since completed the work on the horse franchise and we're now working on the new IP (which holds no relation to the horse game). It's an exciting time for me, as I'm involved in creating everything from sketches to support game design ideas, to







concept art, matte paintings and marketing material. It's the advantage of working in a small studio, you get to work on many different subjects.



Whilst doing your day job at W!Games, you also dabble in doing freelance work. Do you find this tough trying to juggle both, or do you pick and choose which project you take on?

Well, for me it's a matter of managing the freelance workload properly. Having a satisfying day job is an immense luxury - since there is no financial necessity for doing freelance stuff, I can pick those jobs that I find interesting. However, it does work the other way around, too: sometimes you have to turn down work that you would like to do simply because there is no time, and that can be frustrating. Recently I've been doing some fantasy book covers and that is something I've long dreamt of. I'll freely admit that many of the pulp fantasy novels I've read I bought purely because I thought the cover looked cool.





So what is it about painting book covers that you captivates you?

I love how proper covers complement the story by raising questions the text might answer, and by answering certain questions the text might leave behind. They draw you in before you've read the book, and suggests the world goes on beyond the story once you've finished it. I guess it's part nostalgia for me as well, as cover art used to be my primary source of fantasy / sci-fi art prior to the Internet.

Whilst browsing your portfolio I noticed a very interesting project named "Project Indigo". Could you tell us a bit about this project and how far has it progressed since you started it in December 2007?

The whole concept of a vertical city is something that just fuels the imagination, and I had long planned to visualise some ideas about it at some point. However, Project Indigo initially started off as an exercise for me. One of my main shortcomings is that I tend to start detailing too

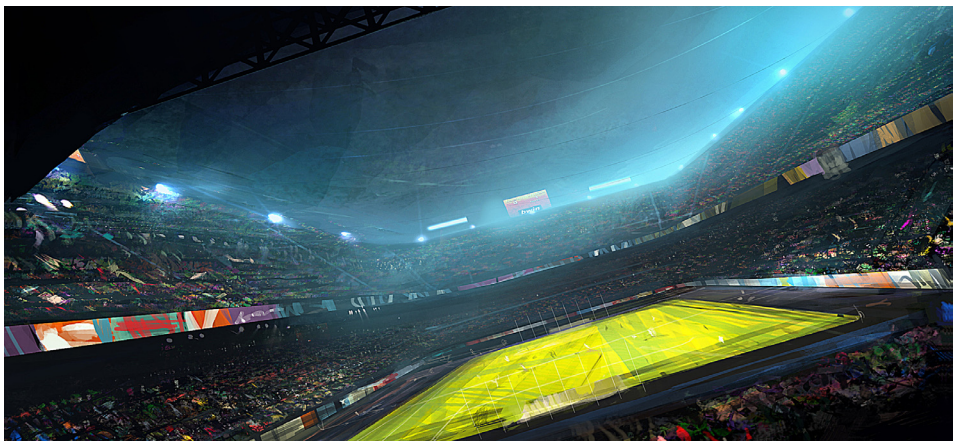






soon and lose track of my painting as a whole. In order to do something about that I set off to visualise a complex design while strictly keeping myself from going into detailing too soon. The "complex design" became the vertical city, and the results, from a methodological perspective, were mixed. Some drawings were loose and suggested detail were none was actually drawn, but then some were already starting to show a disproportionate level of detail in certain areas. As for the design itself, I wanted to show that the city's population was not at all homogenous, and rich people could well live very close to poor people without a conflict immediately erupting. I'm currently not working on it, but I might resume some sketches in the future, it was very fun to work on, and the response from people online has been rather overwhelming.





What has been your most accomplished piece of artwork to date, and why?

My most accomplished piece will always be my next one, at least I hope so! I find it hard to be satisfied with my own work. You sometimes enjoy minor successes as you paint, but in the end you're always left with mixed feelings.

As for a particular piece reflecting my ideas about "what is cool" most closely, over the past three years I've been gathering ideas for a large, coherent world design. The aim at the start of the project was to create a world that could be a setting for a movie, game, toy series, or any other entertainment medium. After a few notebooks of ideas I've recently begun the first phase of fleshing out these ideas in rough concept sketches. I'm not certain I'll ever go public with it, but nevertheless, I greatly enjoy working on such long term projects, especially when I'm able to determine all the major and minor aspects of the world myself.

Can we tempt you to give the readers a quick glimpse of the new world?

Well, you can try! [Laughs]. However, at this point I'm still keeping things tightly under wraps. I'm not even sure I'll go public with any of it, so don't hold your breath.



Well it has been a really pleasure talking with you and I wish you all the best for the future. One last question before we wrap things up. If you had to design a world for yourself to inhabit what would it look like?

Every piece I've made so far contains some element that makes me want to travel to the scene I'm depicting, regardless of whether it's a pleasant place or not at all. It's how I practise environment design; I always paint with the notion of "what would I see were I standing there". In the end, I guess that aspect of design is the sole reason I wanted to be a concept artist: to see other worlds from the inside.

JESSE VAN DIJK

For more work by this artist please visit:
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Interviewed by: Chris Perrins

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"I occasionally stray away from the project and start day dreaming a bit by doodling nonsense."



the sketchbook of Wankok Leong

In this article, Wankok Leong takes us through the development of his “Skinnis” product, from sketches through to the final design.

Hi, I'm WanKok from Malaysia. I'm an illustrator and comic artist. Sketching is second nature to me and I sketch every day, either for work or for personal indulgence. For every project that I take on, I always start with a sketchbook. The idea behind it is to write down ideas, notes, do some thumbnails, rough sketches, layouts etc. I have found that it is a neat way to organise my thoughts and keep a record for each project – something like book-keeping!

A sketchbook is a very personal thing, and each artist has their own "style" of keeping one. My habit is to sketch in stages: 1) Preliminary Sketches, 2) Idea development and 3) Final Layout.

Let me show you the sketchbook that I created during one of my commercial projects, the "Skinnis" project. A brief overview of the project

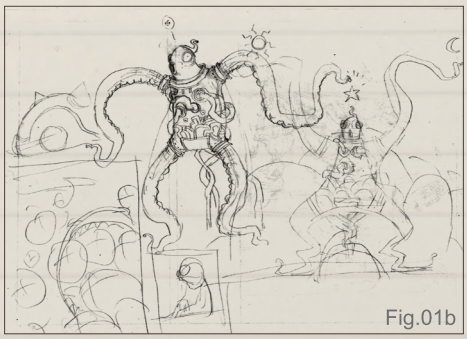


Fig.01b



Fig.01a

was to create a set of designs/illustrations for the use of the skinnis product, for a range of video game platforms, laptops, skateboards and iPods, and also for T-shirts!

So here goes:

1] PRELIMINARY SKETCHES

This is where I start letting the creative juice flow and go all out! A lot of different ideas get written down and are sketched out. You can see from these sketches that I was trying to find the right kind of direction and the overall "tone" for the project (**Fig.01a – Fig.01f**).



Fig.01c

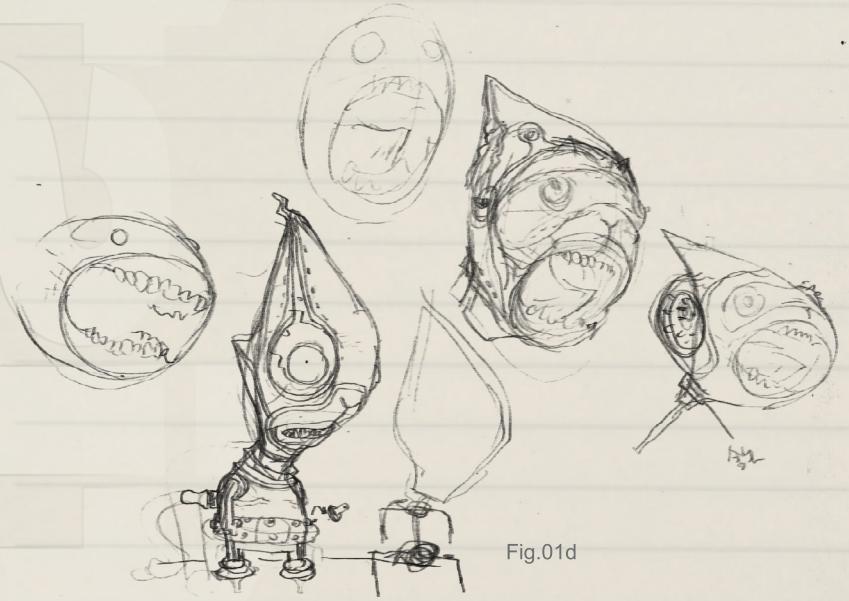


Fig.01d

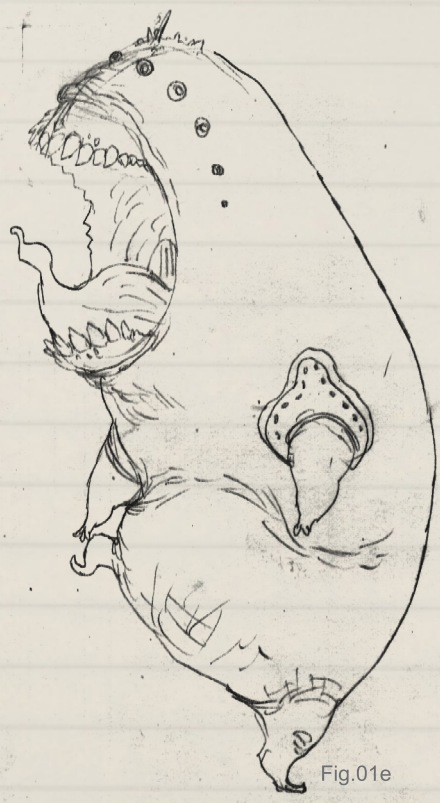


Fig.01e



Fig.01f



Fig.01g

NOTES:

Here I'm sketching down what I have in mind, just having some fun and "straying away" to do some inking (**Fig.01g – Fig.01i**).



Fig.01h

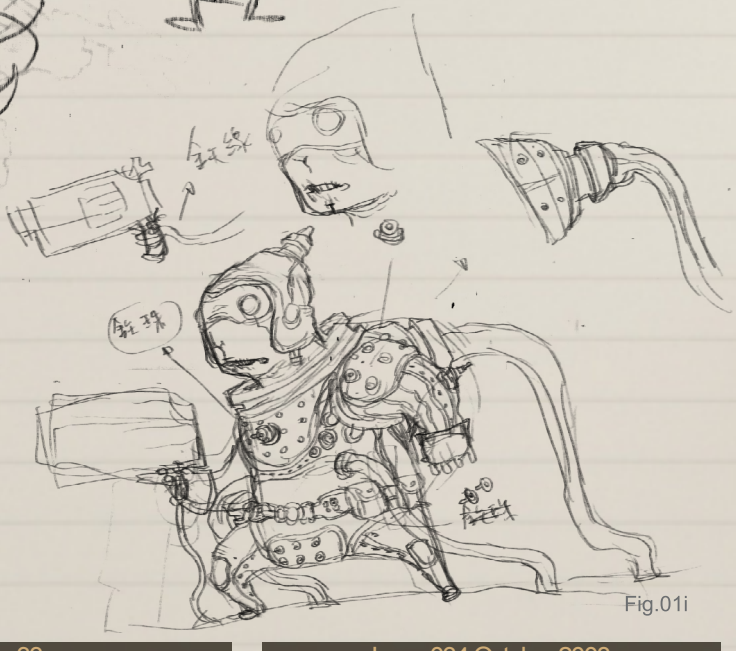


Fig.01i

NOTES:

Slowly heading in the right direction (**Fig.01j – Fig.01l**).

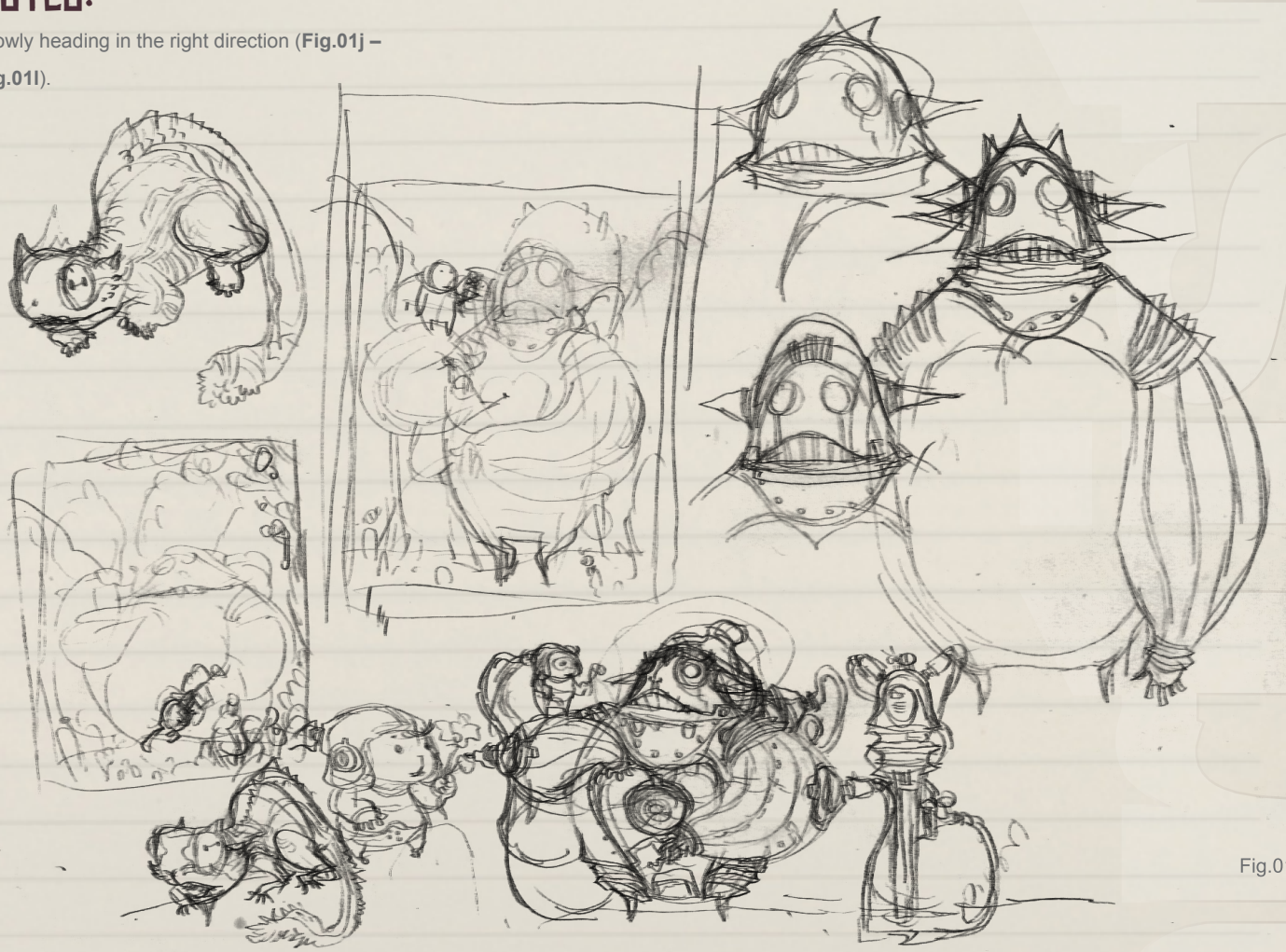


Fig.01j



Fig.01k





Fig.01l

2] IDEA DEVELOPMENT

The nice thing about having a bound sketchbook is that you do not need to go through piles of papers to find that particular sketch (and as you know, we artists have loads of paper lying on our desks!) – you just flip the pages of a single book, and that's it! This makes my life so much easier (**Fig.02a – Fig.02b**)!

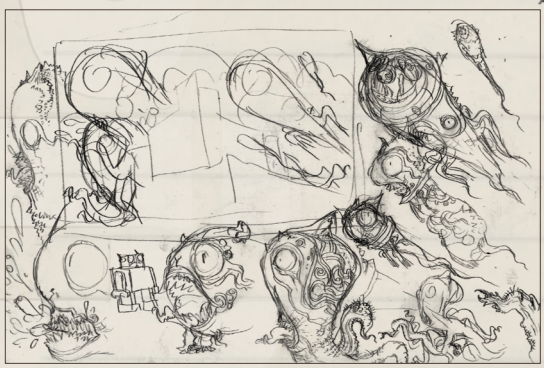


Fig.02b



Fig.02a

NOTES:

Idea is taking form, and so is the direction ... (Fig.02c).



Fig.02c

NOTES:

Layout ideas (**Fig.02d – Fig.02i**).



Fig.02d



Fig.02e

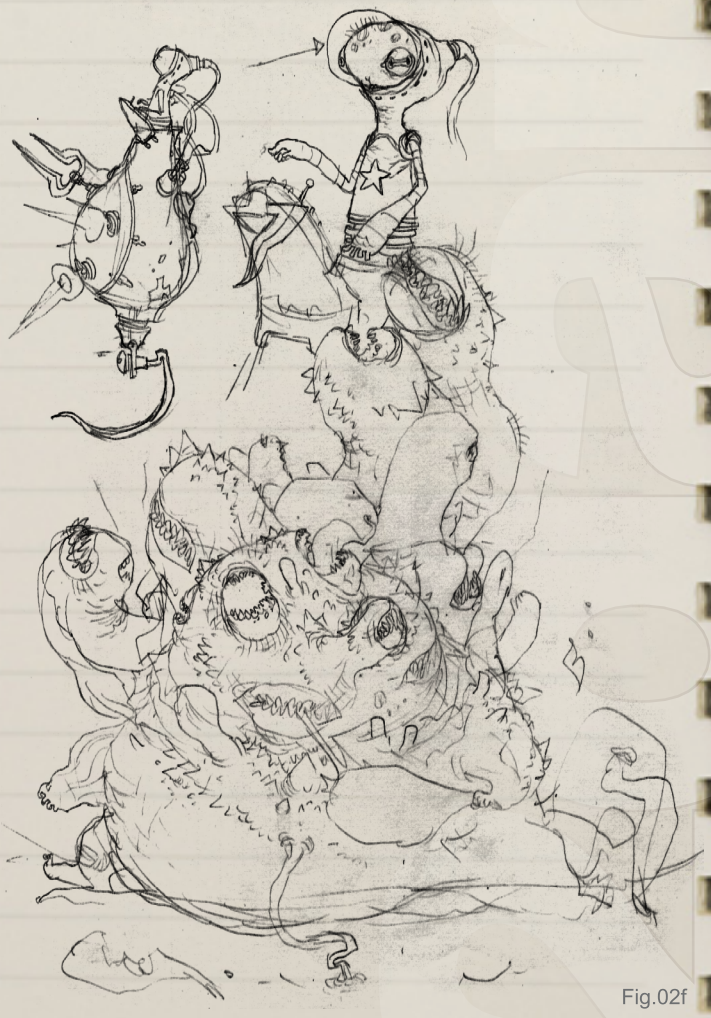


Fig.02f



Fig.02g



NOTES:

Here I make some notes (**Fig.02h**). Translation for the notes: “Characters I like; characters’ backgrounds”.

Fig.02h



Fig.02i

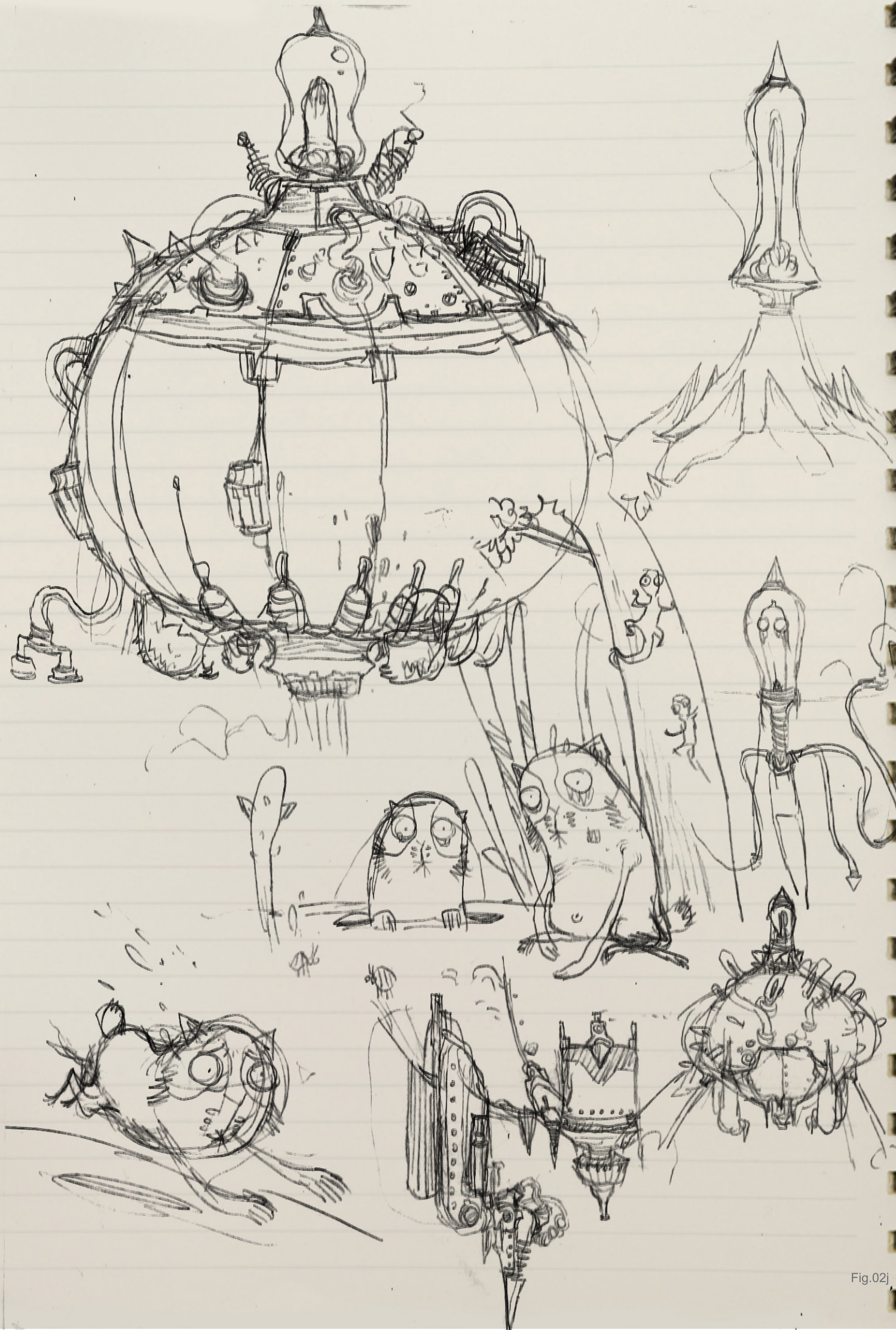


Fig.02j

NOTES:

I occasionally stray away from the project and start day dreaming a bit by doodling nonsense (**Fig.02k**)

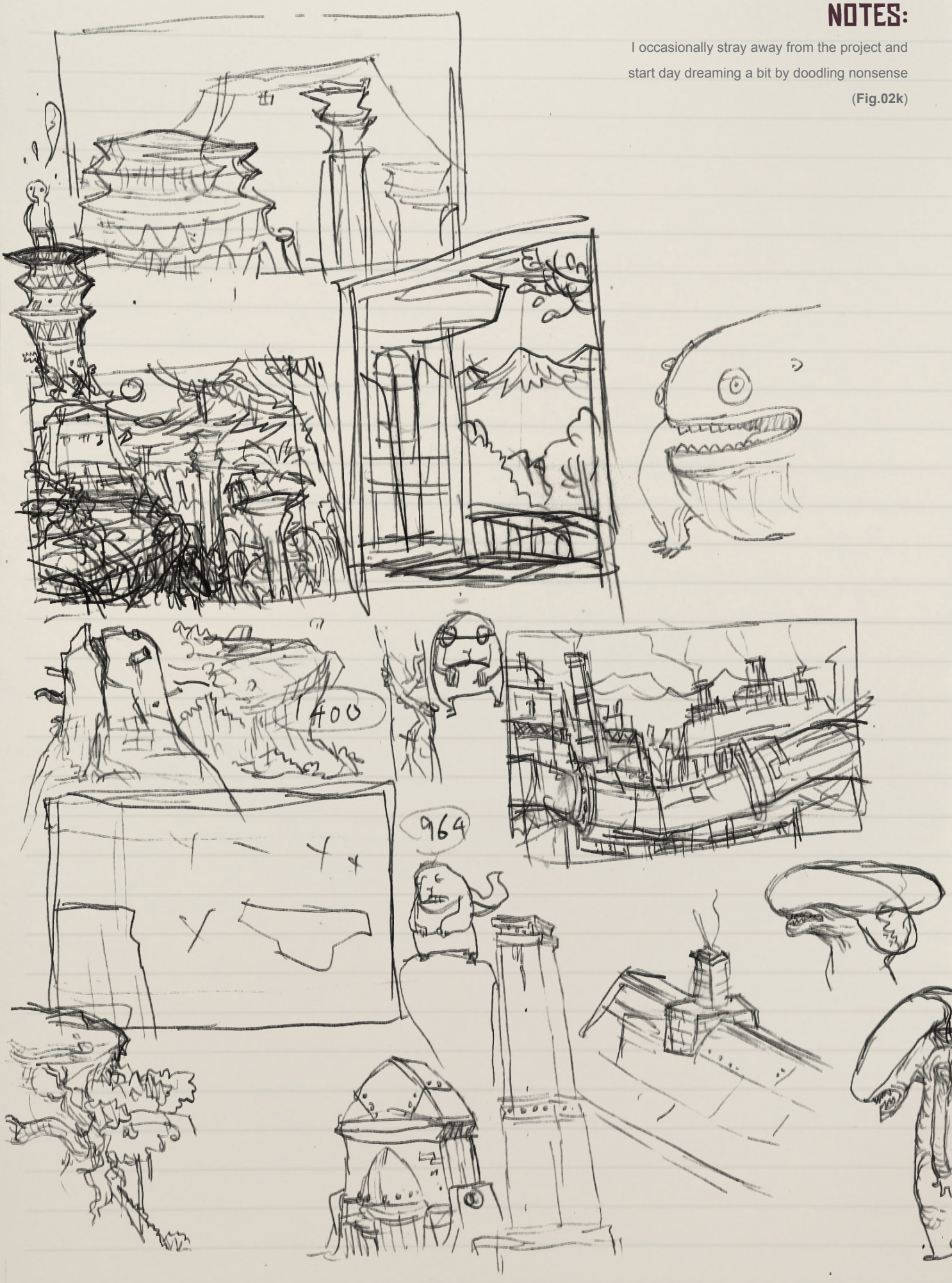


Fig.02k

NOTES:

More final designs taking place (**Fig.02l**).

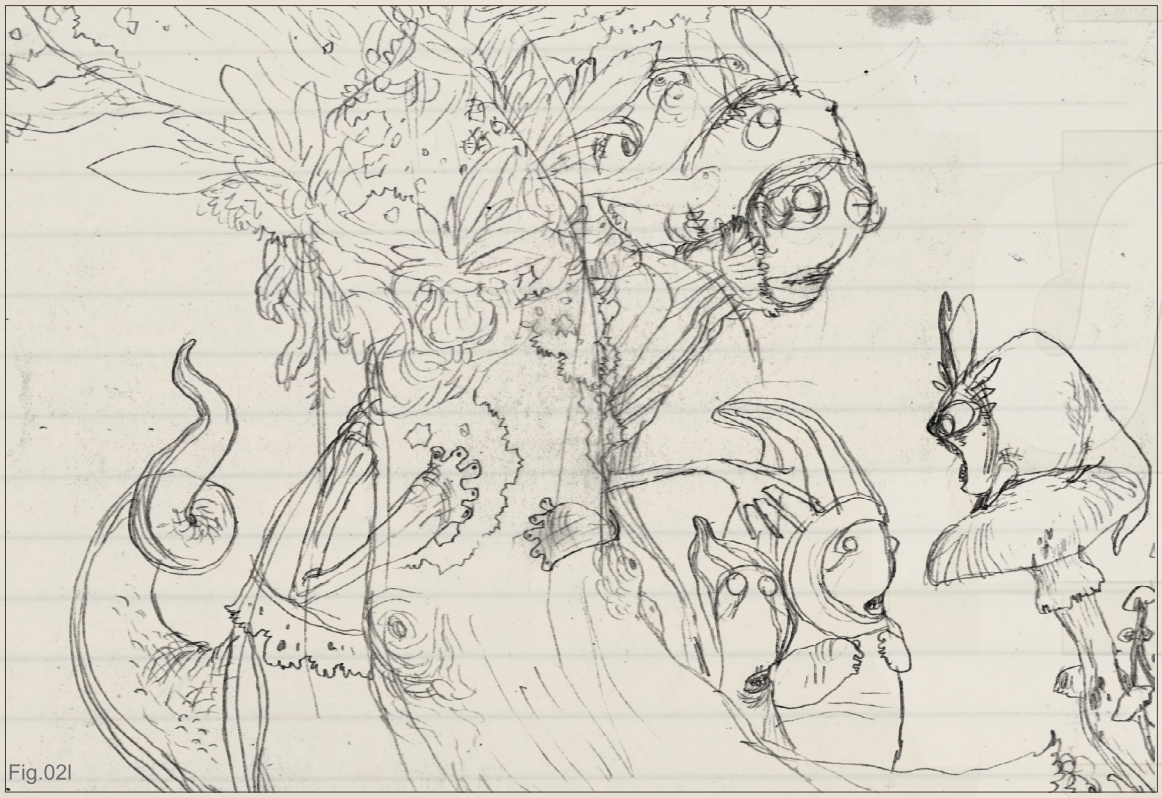


Fig.02l



Fig.02m



NOTES:

This one is me, busy drawing (**Fig.02o**).

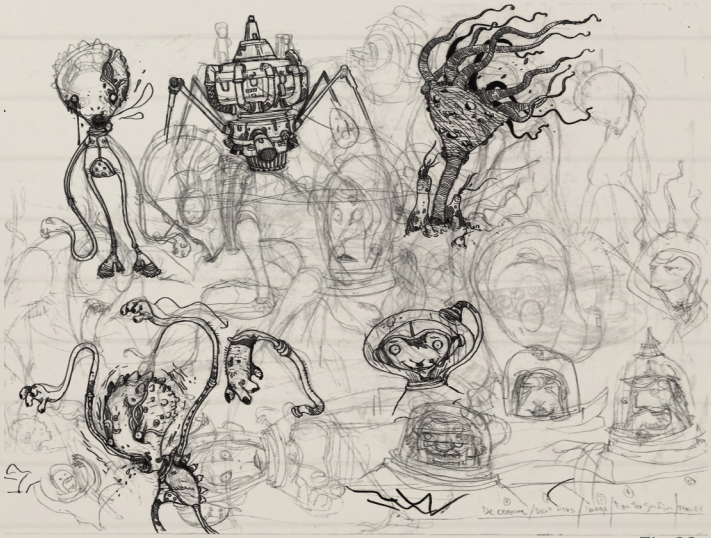


Fig.02n

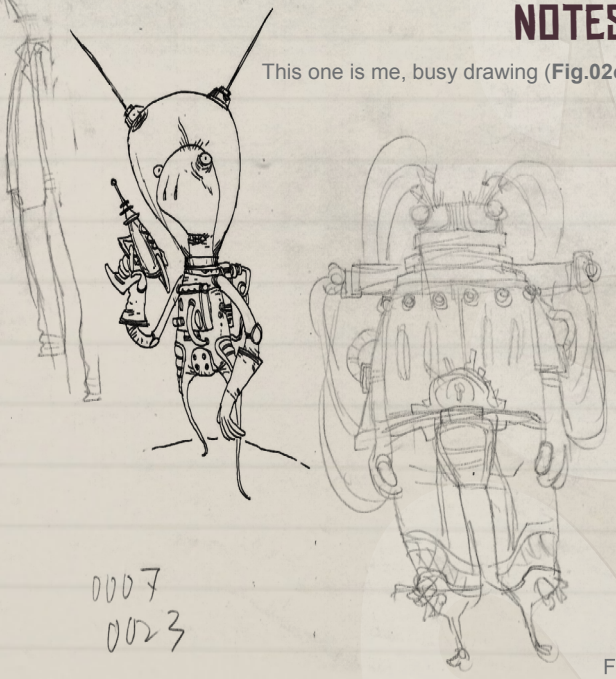


Fig.02o



Fig.02p



Fig.02q



Fig.02r

Here is a collection of my sketchbooks (**Fig.02p - Fig.02r**).

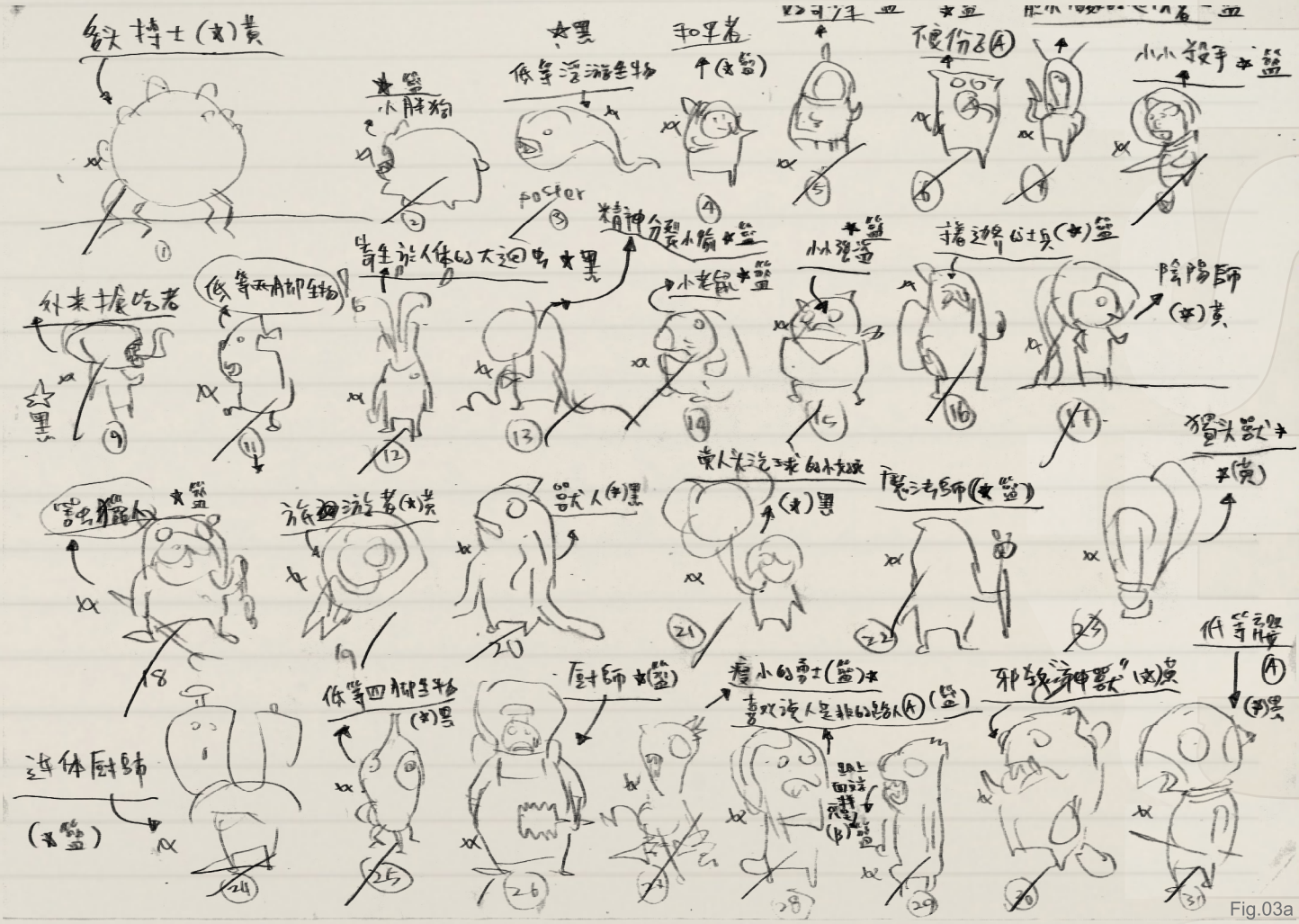


Fig.03a

3] FINAL DESIGN

Here I flip the sketchbook and get a feel for the overall design. I choose the most promising designs and work on them.

NOTES:

This sketch is very important (**Fig.03a**). If I lost it, then I would certainly feel "lost". Through this image, I know how many final designs I need to do, and I can schedule my time according to the work load.

NOTES:

You can see how the ideas develop into a final design with these sketches.

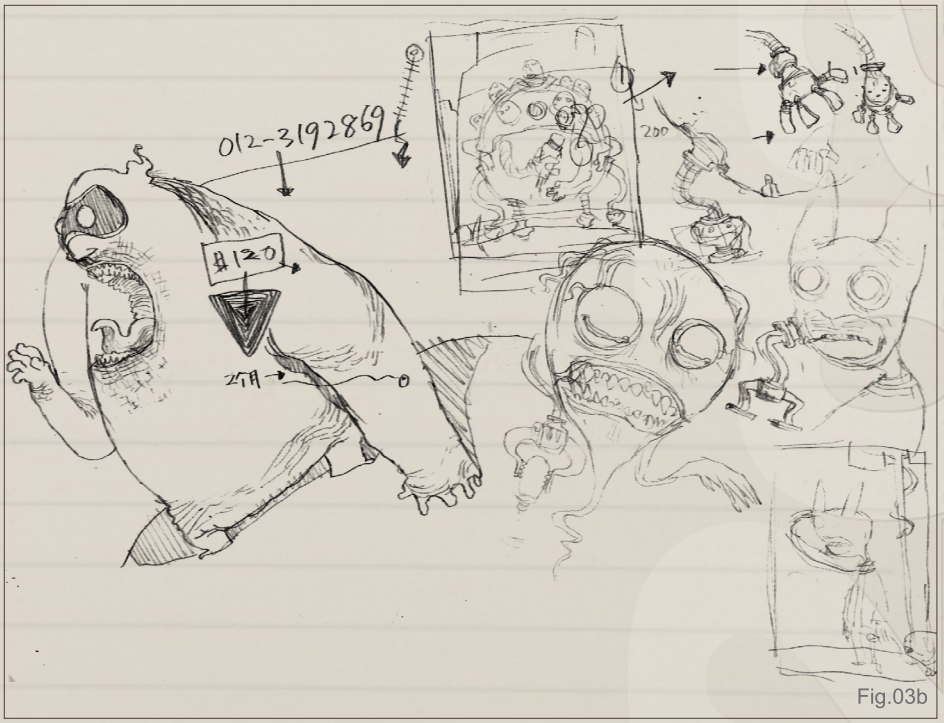


Fig.03b

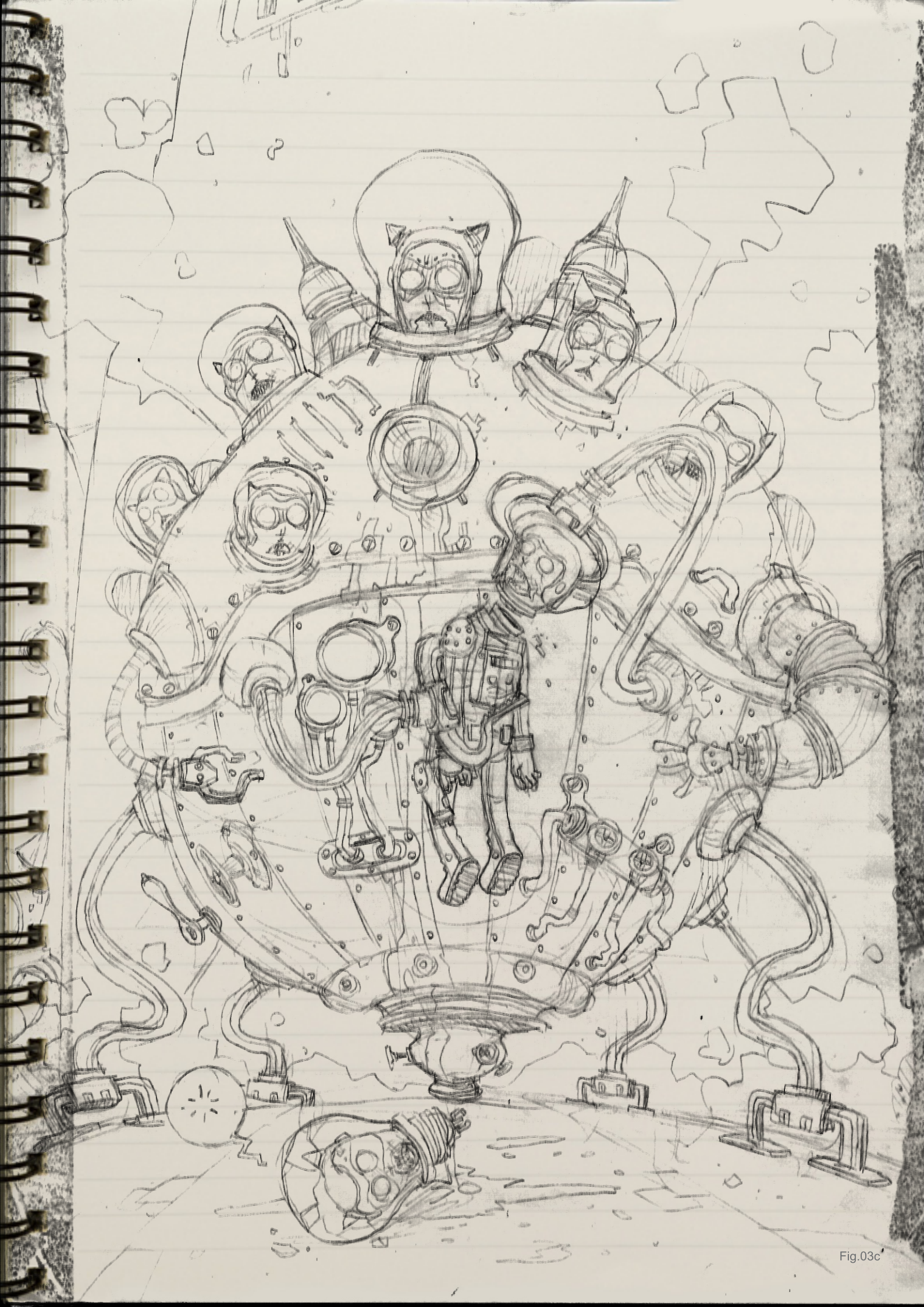


Fig.03c



Fig.03d

NOTES:

Ideas for the final design (**Fig.03f - Fig.03h**). I don't really like **Fig.03g** and go for **Fig.03h** instead!



Fig.03e



Fig.03f



Fig.03g



Fig.03h

NOTES:

More...



Fig.03j



Fig.03i



Fig.03k

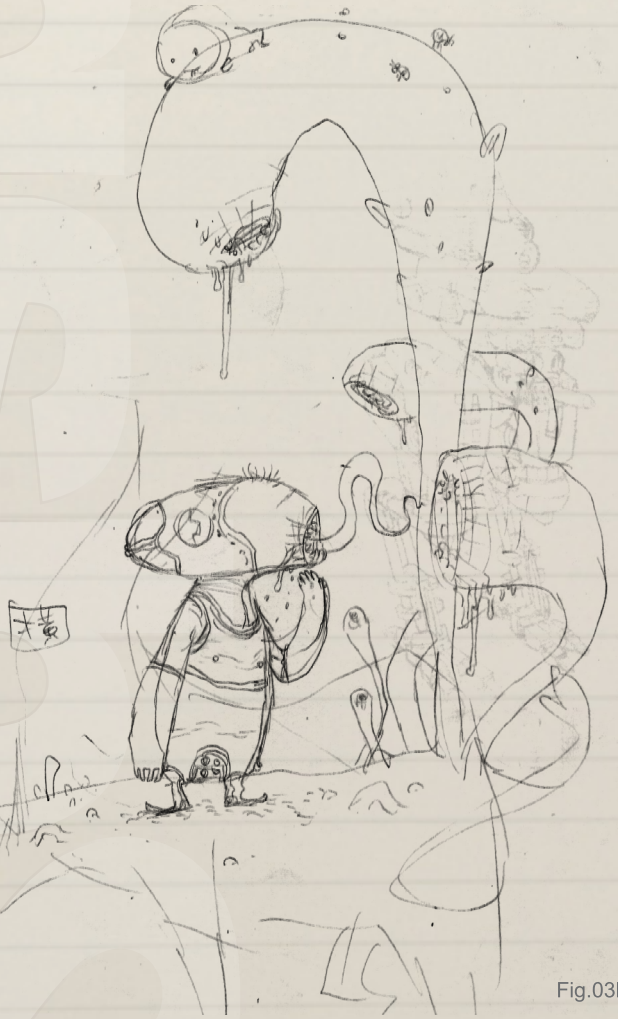


Fig.03l

NOTES:

I call this image “Sweet Nectar” (**Fig.03m**).

NOTES:

Some samples of the final designs (**Fig.03n – Fig.03r**).

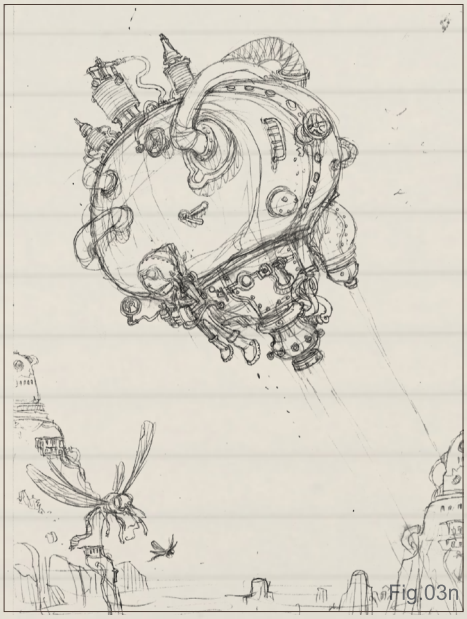


Fig.03n



Fig.03o

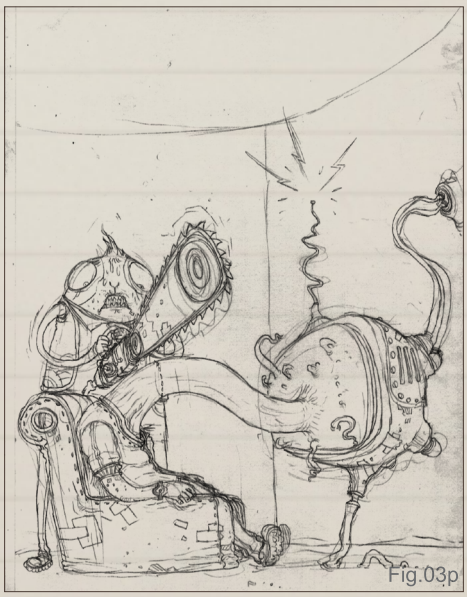


Fig.03p



Fig.03m



Fig.03q



Fig.03

4] FINAL PRODUCT

This sketchbook project would not be completed without showing you the final result, would it? So here are some of the Skinnis designs

These Skinnis are all available at http://www.skinnis.com (under catalogue: 1000tentacles) and also through my website: http://www.1000tentacles.com.

Please visit my website as there you can find more of the kind of illustrations I do. Once again, thanks for reading and I hope you enjoyed going through my sketchbook!

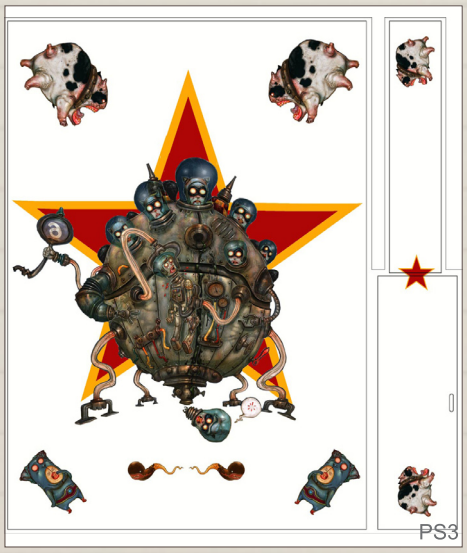
WANKOK LEONG

For more information please visit:
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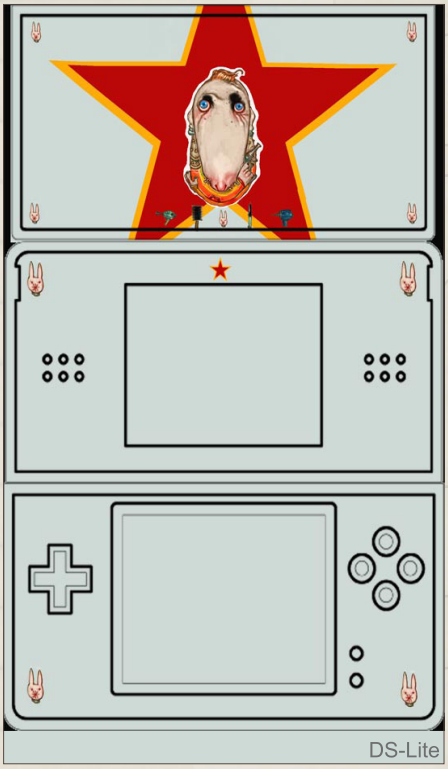

iPod

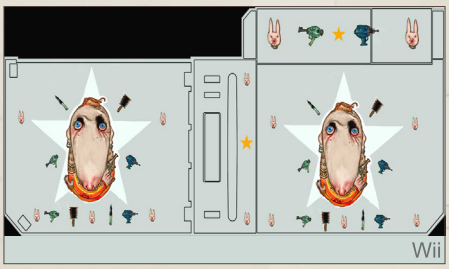

iPodVideo

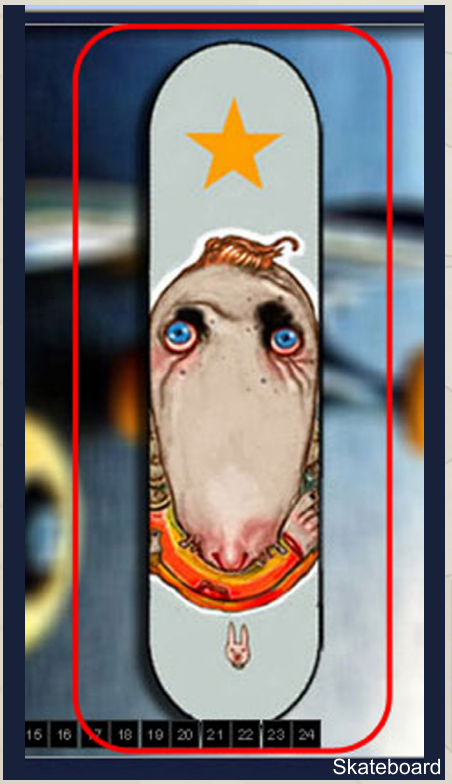

PS3


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T-Shirt


DS-Lite


Wii


Skateboard

ELEMENTS

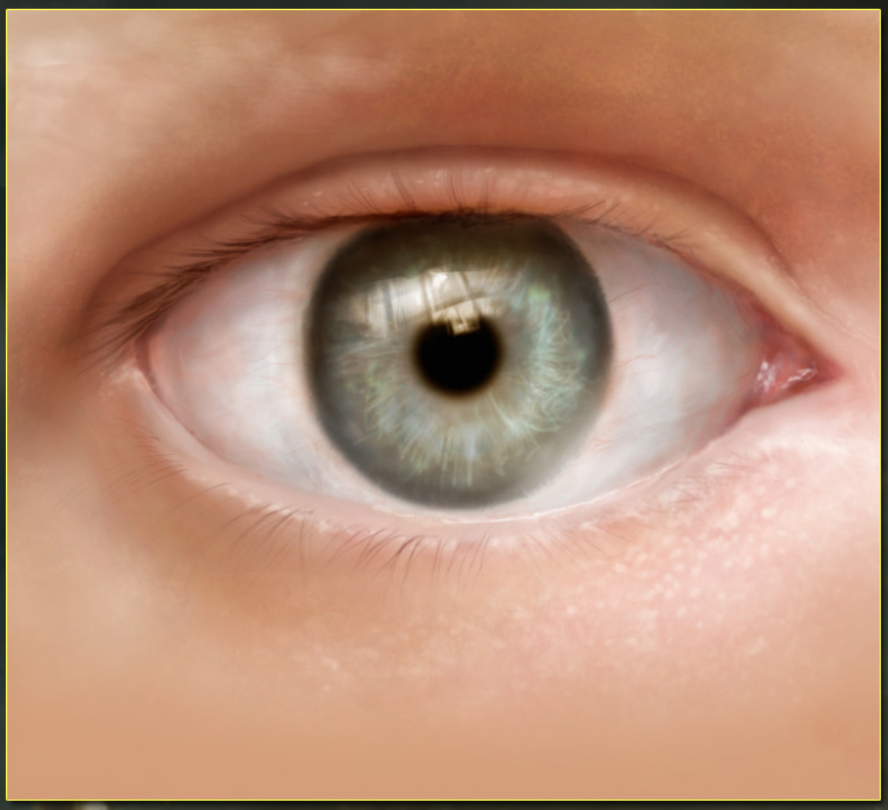
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Introduction

The 'elements' series is a guide to 2D Digital painting and can be followed in most software packages supporting paintbrushes and layers.

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Chapter 3: Painting Fire & Smoke
Chapter 4: Painting Flesh Wounds
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Volume 2

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Chapter 2: Painting Sky
Chapter 3: Painting Skin
Chapter 4: Painting Trees
Chapter 5: Painting Water

Volume 3

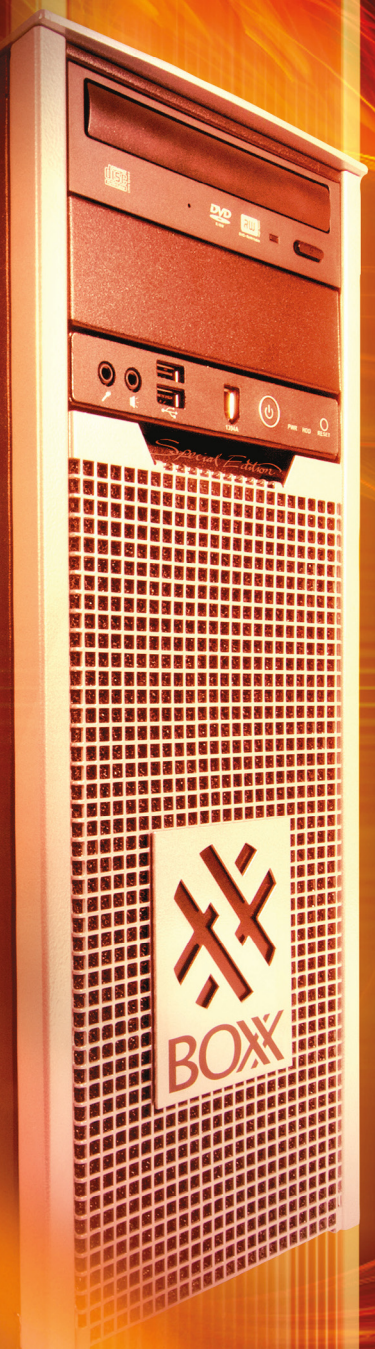
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SKETCH THEATRE



"THE FIRST TEN OR SO ARTISTS I SHOT WITH HAD NO IDEA WHAT THE SITE WOULD EVEN LOOK LIKE. I WAS HITTING UP MICHAEL HUSSAR AND CHET ZAR AND ASKING THEM TO SIT UNDER A CAMERA AND DRAW PICTURES FOR ME!"

MICHAEL BROOM.

Sketch Theatre is a wonderful site that's based around time lapse videos of top artists just sitting down and sketching. It's a simple idea that has been expertly executed by way of a slick website with a great design. When we first came across it we were so impressed that we wanted to find out more, and we did just that by chatting with the executive producer, Lily Feliciano.

SKETCH THEATRE



Let's start at the beginning: how did Sketch Theatre begin and what is your role within the site?

Sketch Theatre was an idea brought to me by Alex Alvarez. His vision went something like this: there are so many creative people out there who have discarded their old pencils and sketchbooks in favour of more modern artistic mediums. Why not find a way to get them to tap back into the root of their artistic inspiration and see what happens?



I see, and how difficult was it to convert Alex's ideas into the website?

I was given some basic guidelines for the site criteria. One being that the artists involved should already be established in their chosen field, so that the website became very much an online collective of known artists and gave visitors sneak peak into their pencil boxes. This is sometimes a sore realisation for students and those aspiring artists who admire the site and want to have a place to submit their own sketch videos, but that's why we created the forum - so that no one is left out.

Was there anything particularly challenging in the run up to the launch?

My biggest challenge was pitching the idea of what the site "would be" when it didn't yet exist! The first ten or so artists I shot with had no idea what the site would even look like. I was hitting up Michael Hussar and Chet Zar and asking them to sit under a camera and draw pictures for me with few questions asked, and they just jumped straight in. With David Krentz I brought the equipment over to his studio. His ceiling was so low that once the camera was propped up on his drawing desk, it was dangerously skimming the top and I had to lower the camera stand and lights so close to his head that I worried the lights would catch his hair on fire! Fortunately, no damage ensued. We spoke of the wonders of the *Hedwig and the Angry Inch* soundtrack while he cranked out all of those detailed sketches of crazy Huns on horseback in less than two hours - a total pro under those scorching lights! I've been really lucky to work with such awesome people.

Can you sum up the main objectives of Sketch Theatre?

Ideally that the site is both entertaining and inspiring. Whether that inspiration comes from watching an artist you admire draw out a rough


GO!
DAVIS '08

piece or stream of consciousness sketch, or discovering new artists and music, it doesn't matter. Either way, capturing the attention of the audience and giving something back is key. For the artists involved, it's a great way to gain some extra exposure and "time capsule" their method on film. I've yet to work with an artist that didn't feel motivated to work on some new art after sitting down for an hour or two under the camera.

Is there a big team behind the site and what is your system for producing the content?

A very small team, I'm the executive producer for the site. So my day to day is getting in touch with artists and musicians that I would like to feature. I shoot with artists for a few hours at a time at the studio here in Hollywood then edit the content. Then I write the editorial, conduct interviews, go to art shows and pillage open bar parties, etc. The web designers do the rest, which is to say all the technical and design aspects of the site.

It's interesting that you should mention art shows as I bumped into you at Siggraph this summer (and yes, you sure know how to throw open bar parties in LA!). As Siggraph is mainly 3D, did you find this visit productive?

I think both 2D and 3D artists are equally excited at the prospect of being featured on the site. Most 3D artists haven't forgotten that an HB pencil was their first best friend when they wanted to express themselves, long before the word "nurb" ever entered their vocabulary.







The web site design is just great and I especially like the theatre tickets on the "artists" page. Who came up with the designs, what was their brief and is the final result how you envisioned it would look like?

The look of the site was conceived by a designer named Sera Timms. She's amazing and really understands bringing historical, old vintage themes into the modern world of web design. From there our art director Michael Paskar brought on ideas such as the theatre tickets for the artists' pages. It keeps evolving from this haunted early 20th century theatre theme.

The tickets are great and I noticed you carried these right through to your business cards too! How about merchandise or other spin-offs, any plans?

We have thousands of awesome black Sketch Theatre pencils with red foil text. I give them to artists who come in and shoot but we haven't yet settled on a pencil box or case to sell them in as a set. So hopefully that will happen very

soon. I get requests for signed, limited edition prints, which is cool - those are next on the agenda. Feedback and requests are essential for me since the site is still so new!

You seem to have a steady stream of updates and I'm sure you're hits are growing. Are things rolling along as you imagined?

Absolutely, but I won't be satisfied until the site has it's own beating pulse. We've recently added a user forum which I hope will move that



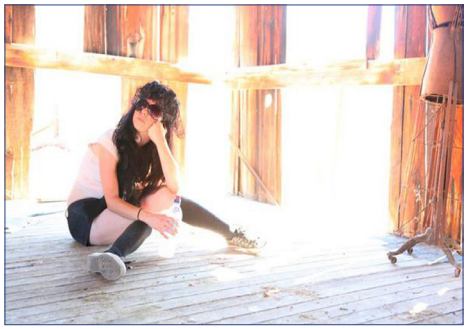
along. The site has been up for just under a year, there are still so many artists I'd love to shoot with and get involved!

I'm glad it's growing well! How about if artists from other countries want to contribute? Will you allow users to submit their own videos?

Definitely - the user forum will be a starting point for that. Soon, anyone will be open to post videos there, which we're all looking forward to checking out.

What are your future plans for Sketch Theatre and how would you really like the site to progress?

We'll continue to expand the roster of amazing talent, getting in with some festivals is a goal - just generally getting the word out. I'd also love to include editorial on the local art and music scene. And video interviews, behind the scenes looks at what it takes to be a successful artist these days, from those who've overcome the hurdles. Once I get an artist in the chair they may be tied down for a milking, if they'll allow it!







It's all for the good of the audience! It's not every day you get some insight into these often very private and sometimes reclusive talents.

I'm sure everyone is looking forward to seeing your plans come to life. As for us, we will definitely be keeping a close eye. It's been great chatting with you Lily, thanks again and keep in touch - Tom

LILY FELICIANO

For more information please visit:

http://www.sketchtheatre.com

Or contact:

lily@sketchtheatre.com

Article courtesy: Tom Greenway


MICHAEL BROOM.

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THE GALLERY



This month we feature:

Sean Hong

Nicolas Villeminot

Andreas Rocha

Julia Bax

Chen Lin (wanbao)

Yap Kun Rong

Michal Ivan

Helena Rusovitch aka SLIDE

Yang Xueguo

Thomas Krahn

NICO
2008



CURIOSUM

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"WHO IS THAT?"

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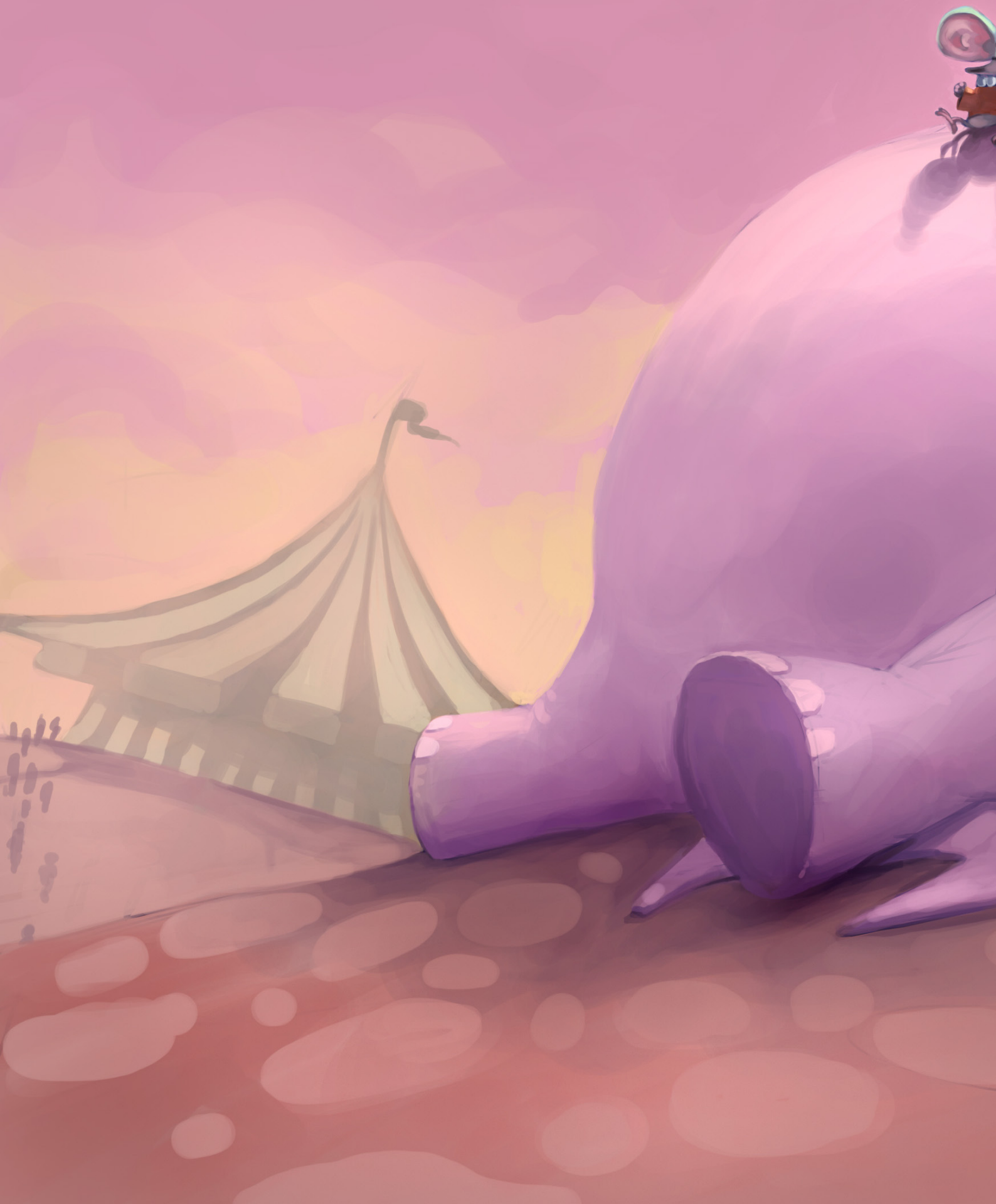


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Andreas Rocha

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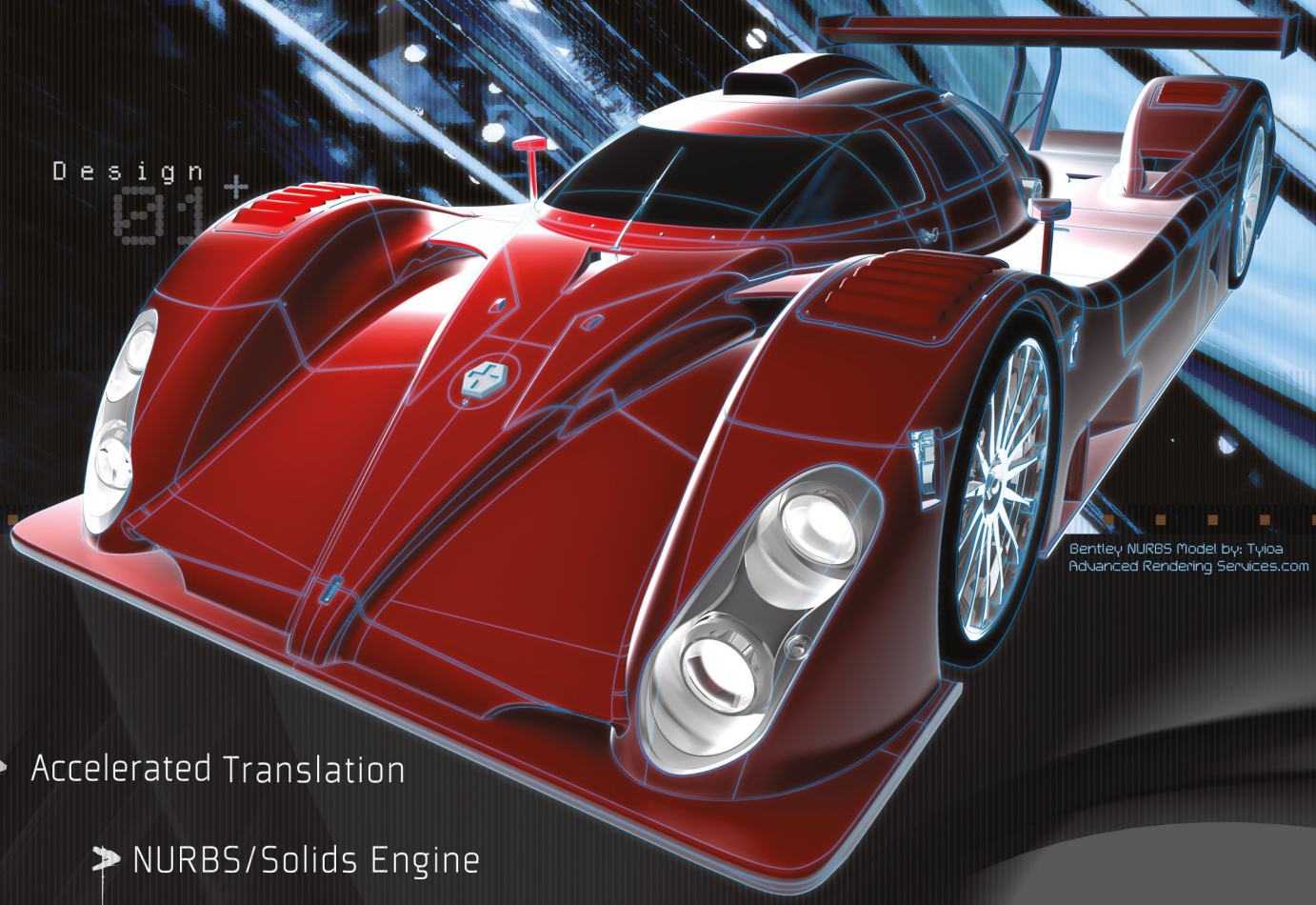
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the 2DA challenge

2DArtist Magazine introduces the "Challenge" section of the mag. Every month we will run the challenge in the conceptart.org forums, available for anyone to enter, for prizes and goodies from www.3dtotal.com shop and to also get featured in this very magazine! Here we will display the winners from the previous month's challenge and the "Making Of's" from the month before that.



Ancient Warrior

Stylised challenge

In Association with CONCEPTART.ORG THREEDY FORUMS

Stylised Challenge

Ancient Warrior

THE CHALLENGE

Welcome to the Super Stylised Monthly Challenge. Each month we will select an theme and post some images in the Forum Thread as reference. All you have to do is to create a 2D image in line with this theme in a stylised / abstract / cartoon style, whilst keeping your image instantly recognisable. We wanted to publish some content in 2DArtist Magazine on how to create stylised images, such as you see in the many feature films and cartoon galleries. We thought this regular competition might bring in just the images / Making Of's that we need, whilst giving away great prizes and exposure. If it's a success we will start to boost the prizes up as much as possible! This month's theme was "Ancient Warrior". Here you can see the top placed entries, as voted for by the public.

WHAT ARE WE LOOKING FOR?

Funny and humorous entries which break the theme down to its most recognisable components; emphasise these in whichever ways you think best, and render your stylised / abstract / cartoon masterpiece. The rules are pretty laid back: please submit 1 x 3D render (minor post work is OK); its up to you if you want to have a background; include some graphical elements or text on your image. Renders of the 800 pixel dimension sound about right, but the winners will be featured in 2DArtist Magazine, so if you can create some higher res images too then all the better!

There will be one competition per month, with the deadline being the end of the month (GMT). For a valid entry, just make sure your final image



6TH LUCENT VERNER



5TH GNAHZ http://gnahz.deviantart.com/



5TH MURDOKX



4TH TOMMOY www.thecartoonfactory.nl

is posted in the main competition thread before the deadline. We require the top three winners to submit “Making Of” overview articles that will be shown on either 3DTotal or in 2DArtist Magazine. These need to show the stages of your creation - different elements and some brief explanation text - of why, and how, you did what you did. We will format this into some nice-looking pages to give you some great exposure, and us some quality content. Each competition will have one main thread which starts with the brief at the top. All entrants should post all WIP’s, give feedback and generally laugh at the crazy ideas that are emerging each month...

CHALLENGE THREAD

The entire Ancient Warrior competition can be viewed Here

The current challenge at the voting stage is:

FRANKENSTEIN'S MONSTER / SCIENCE MISHAP

The current challenge taking place is:

SCARECROW



2ND MATTEO'89
teo-disturbed@o2.pl
http://sickteo.blogspot.com



3RD SHATTEREDFX
shatteredfx@hotmail.com
http://www.raffydematawaran.com

To join the next challenge, or to view previous, and / or current entries, please visit: www.conceptart.org

Or contact: lynette@zoopublishing.com

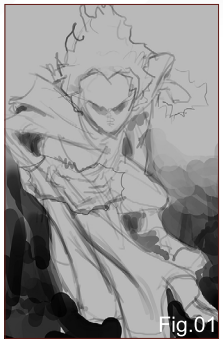
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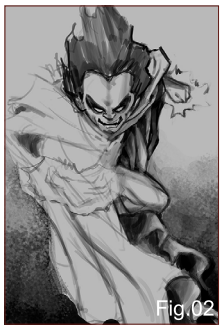


contactos@ffilustracion.com
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3RD SHATTEREDFX

Hello! Here I am again with another “Making Of” the finished stylised challenge artwork, which I have called “The Wraith Goblin”. My name is Raffy Dematawaran, I’m an overseas CG artist and designer presently residing in Shenzhen, China. The story of the artwork that I’ll be talking about here is about a young average lad who discovers a talisman from outer space, and eventually it turns him into a relentless force of evil that brings about the destruction of anything that gets in his way ... so without any further ado, I’d like to begin the walkthrough.


Fig.01


Fig.02

STEP 1

As per my usual approach, I started with a grey background. I was thinking of doing a supervillain that was in somewhat of a dynamic flying pose. Aside from his ability to fly, I thought that he could perhaps also have some power to release nuke-fire balls from his hands?! I figured he might also have a head slightly bigger for his body, with his hair piled up high. Here is a very rough sketch that I made just to understand his pose and basic anatomy (**Fig.01**).

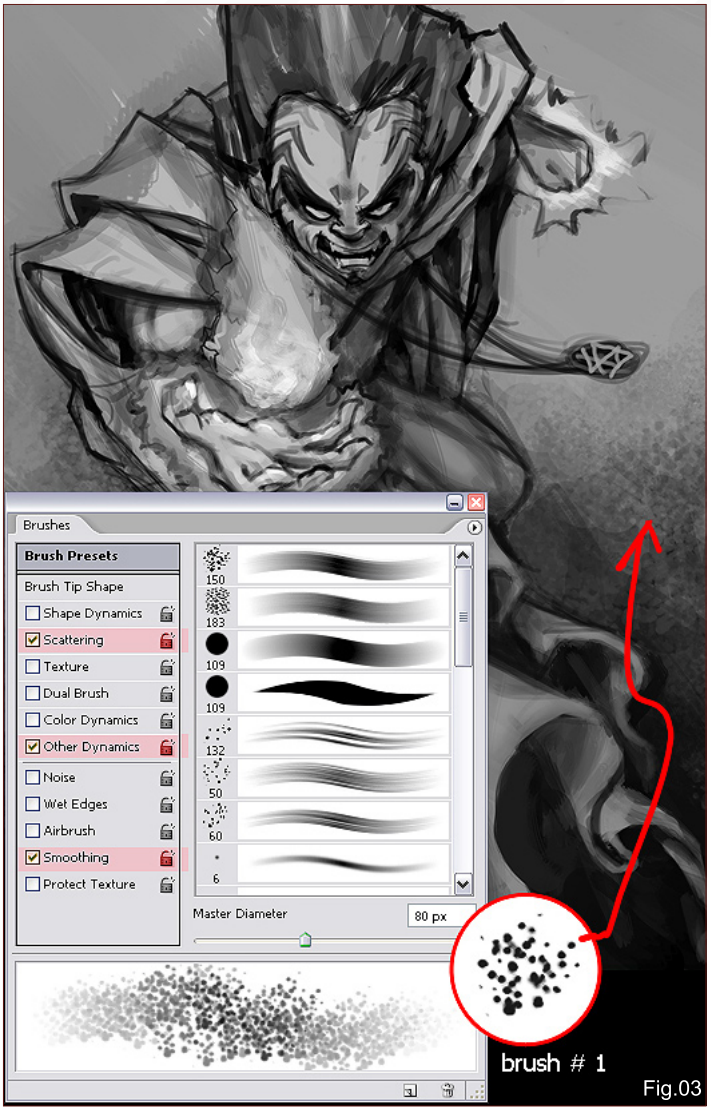


Fig.03


Fig.04

STEP 2

Here I tried out some darker outlines to help better define the shape. On the face, I drew the regular facial features added some dark make-up to his eyes, as well as a pair of fangs to his teeth (**Fig.02**).

STEP 3

Continuing with the greyscale sketching, I used brush #1 to paint and smudge the background (please see the detailed settings for reference) (**Fig.03**). On his face I painted some more make-up – or tattoos – to make him look more menacing. You can see now that a fire ball is more visible on his right hand. I also added a talisman that he now wears around his

neck – this is to give viewers some hints that this talisman might be the source of his powers.

STEP 4

I wanted the whole composition to be a bit darker at this point, so I threw some more black on the drawing, using the default airbrush from Photoshop. But, of course, I needed to make some parts of the composition highlighted for the focal points, which in this case were the face, hands and fireball (**Fig.04**).

STEP 5

With the greyscale values already laid down, it was time to begin painting in some colour. The first thing I thought to do at this stage was to determine what colours to use, so I started off by making a mock-up palette on the canvas (**Fig.05**). By carefully weighing up the contrasts and harmonies, I was making sure that the colours would complement each other well. I should also mention that the colour you use must determine the overall mood that you want to portray as well, so in this instance the character is blazing with menace, so I chose to use warm colour on his face to show more energy. After deciding which colours to use, I applied them little by little whilst checking to make sure I didn't mess things up when I laid them down. Aside from the palette, I adjusted the background saturation a little by adding a dark purple hue to it.

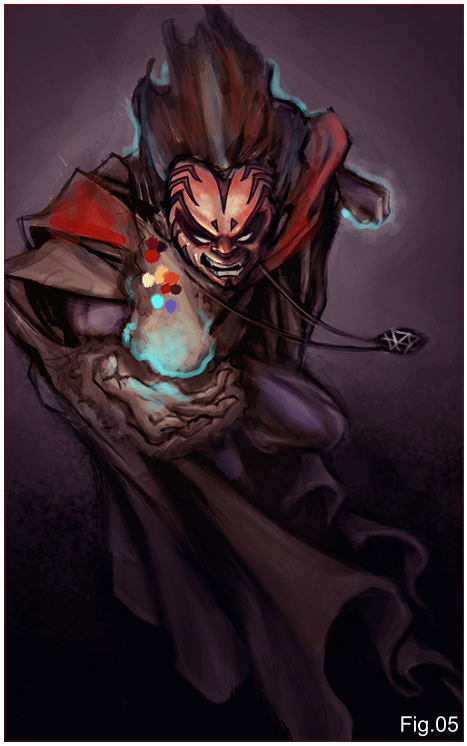

Fig.05


Fig.06


Fig.07

STEP 6

At this stage, the colour palette looked fine, so I moved on to blocking in the major parts that needed some colouring. I figured that red was probably going to dominate the whole piece because it's the colour I chose for his cape; for the fire ball I used yellow, orange and cyan to make the fire ball look more radioactive. To make the character "pop-up" more, I painted some cyan as a backlight, and also used cyan to illuminate the talisman (**Fig.06**).

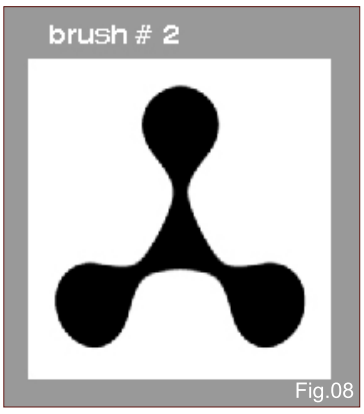


Fig.08

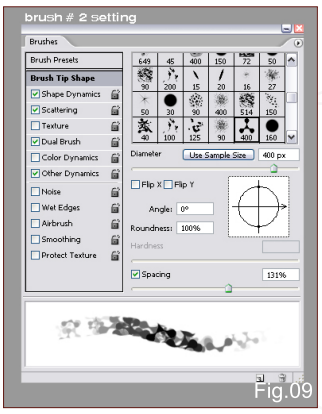


Fig.09



STEP 7

My character was in a dynamic flying pose, but I still couldn't find a feeling of action in the piece, so here I tried to us a motion blur filter in Photoshop to achieve just that. First I made a copy of a new layer on top, then went to Filter > Blur > Radial Blur (check on zoom!) and adjusted the amount accordingly. I pressed OK and changed the Overlay layer setting to Soft Colour (adjust the opacity if necessary!), and I had my zooming super villain (**Fig.07**)!

CONCLUSION

If you want to achieve the same effect as I got on my highlighted fireball, I have added some snapshots that you can perhaps try to capture using the Print Screen function for yourself to make your very own custom brush! Simply define the brush (**Fig.08**), save it and then follow the settings as shown (**Fig.09**). Then, by just simply dabbing the cyan colour over the orange, and vice versa, you should get a similar effect to that shown in my final render!

FINAL STEP

I finished things off by adding some more details, smudging some edges and painting more on the highlights to make them stand out more ... and with that, I was done! I could have put more effort in at the end, but there wasn't much time left until deadline, so I had to end it there. Thanks everyone!

RAFFY DEMATAWARAN

For more work by this artist please visit:
http://www.raffydematawaran.com
Or contact them at:
shatteredfx@hotmail.com

The Wraith Goblin

www.raffydematawaran.com

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2ND SCARYPOTATO

INTRODUCTION

It took a little while to get the inspiration for my supervillain. I was struggling to come up with something that was familiar enough to read instantly as a supervillain, whilst not coming off as overly clichéd. The source of inspiration ended up coming from a personal project of mine. I had been toying around with the idea of a skull-headed zombie that lays bombs at your feet with long rubbery arms.

STEP 01

I opted to give him a few more arms to make him seem a little otherworldly, as well as the all-important cape. His pose is my interpretation of the frustration he'd feel seeing the good guys

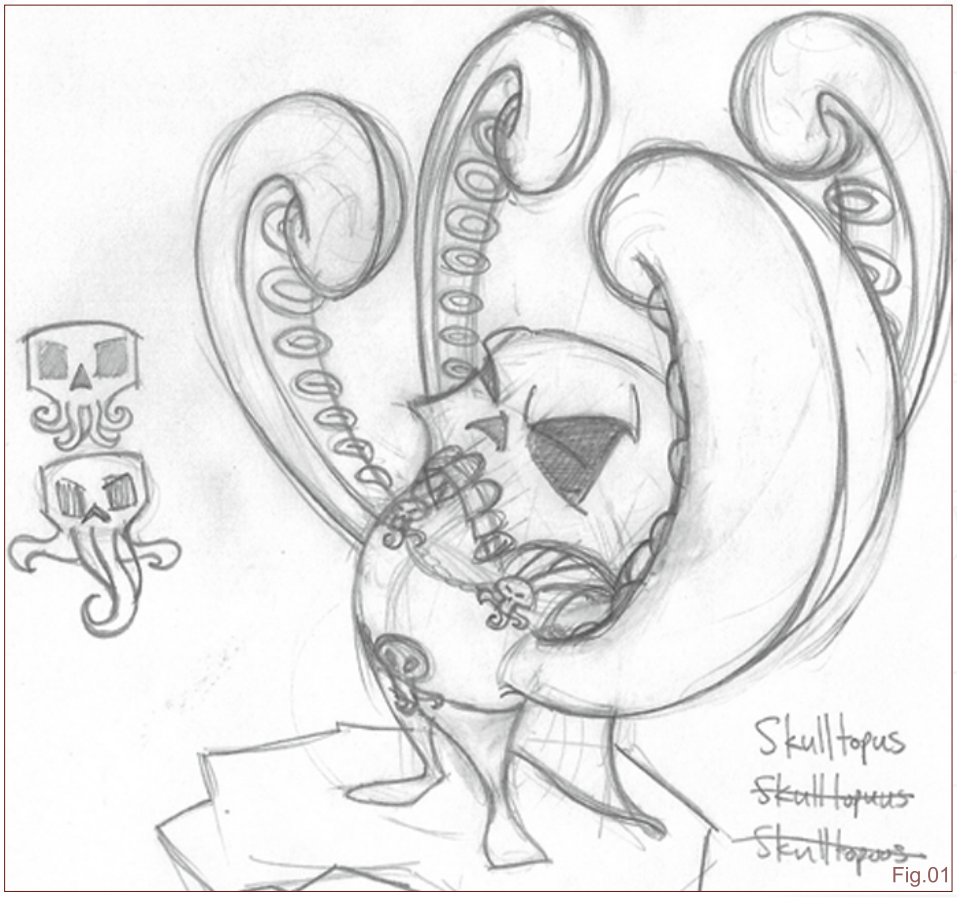


Fig.01

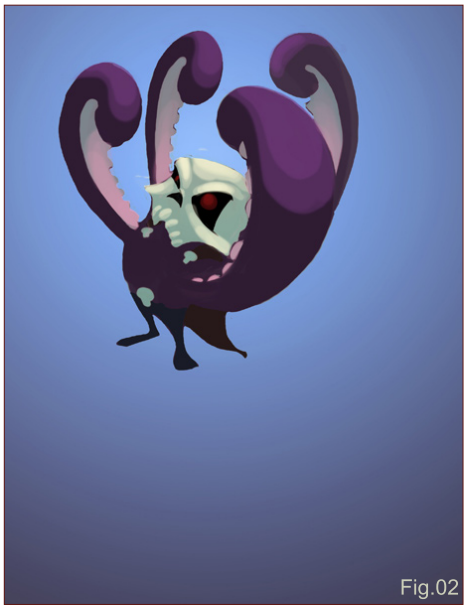

Fig.02


Fig.03

beat him to the punch – yet again! If he had a lower jaw, he'd be crying out in rage!! After some brainstorming, I came up with a look that I wanted for Skulltopus (**Fig.01**). He's cartoony and tiny, but hopefully still has a sinister vibe going on.

STEP 02

My first thought was to show him in a full scene, with him standing on an underwater ledge with his "fists" raised up in anger at the good guys, but I wasn't too happy with how it was going when I started dropping colours in (**Fig.02**). It was meant to look dynamic, but I felt that not enough attention was focused on Skulltopus himself at this stage.

STEP 03

My next try featured him more or less centred in the image (**Fig.03**). At this point I'd begun fleshing him out a bit, shining some lights on him and such. I figured that his skin was on the slimy side, so it would have really bright reflections compared to the rest of him. Typically, I used the standard round brush in Photoshop at around 30-50% opacity to put down the details in this step, still working fairly roughly with hard edges for the most part, as I was still getting a feel for the form.

STEP 04

In this next step I threw in a little banner at the bottom announcing who this guy is (**Fig.04**), mostly because it seemed a little plain with just the character and a simple background. The font for it is called "Junior and Stinky", and it's one of my favourites! I did customise the letter "o" just a bit though, to make it more in keeping with the theme.

STEP 05

I then softened things out quite a bit, changing the light source to make it a little more accurate (**Fig.05**). I wasn't too concerned with making the light sources completely realistic and accurate, so they were more or less shown where I felt they helped define his form in an interesting way.

STEP 06

Here I continued refining him (**Fig.06**), working on the lights a little more and throwing in a few more details (the folds of his cape where it's pinned to his chest and relocating the pin on his right shoulder, for example).

STEP 07

I was starting to feel pretty good about how he was coming together, so he was allowed to get some textural details here (**Fig.07**). When I think of octopus/squid skin, I think of those little pigment specks, and this seemed like a natural thing for this guy to have also. I simply used the scattering option on the good old standard brush with a few different colours to get some variation in there. I also gave him more contrast between light/dark on him, as well as continuing to add little details to him in an attempt to make him more attention-grabbing. At this point, his face and suckers were still more or less unchanged from the beginning, but everything else was well on its way!



Fig.04



Fig.05



Fig.09



Fig.06



Fig.07



Fig.08

STEP 08

The next step was to work on the face and suckers (**Fig.08**). The skull got some refinements, and the suckers were redone to look like pink bubble/blister things. When it comes to adding details and transitions between light and dark, I like to use a very soft brush with a low opacity (30% or so), and build up a nice smooth change. It also really helps if you pick up a little of the surrounding scene's colour to help give a more natural feel. Just going from dark to light will make it look cartoony, but flat.

STEP 09

Skulltopus was nearly done now, but he was lacking any kind of battle scars. Everyone knows that bad guys always lose, so they should always have more than their share of bumps and bruises! I played around a little bit with placing some cracks in the skull (**Fig.09**), and wondered what else



Fig.10

he could use to show his experience – maybe some big scars on the soft tentacle flesh of his arms? Yes, lots of big scars! More skull cracks, too, for good measure (**Fig.10**)!

FINAL

I also went in and refined the edges a little bit on the figure, as the tentacles in particular weren't as smooth as they should have been. One of the last things I ended up doing was creating a duplicate layer of the character and adding a very small Gaussian Blur from the Filters menu to soften the edges slightly. He seemed just a little too crisp for my liking, and that the blur filter seemed to make him more a part of the whole, rather than something lying on top of the background.

CONCLUSION

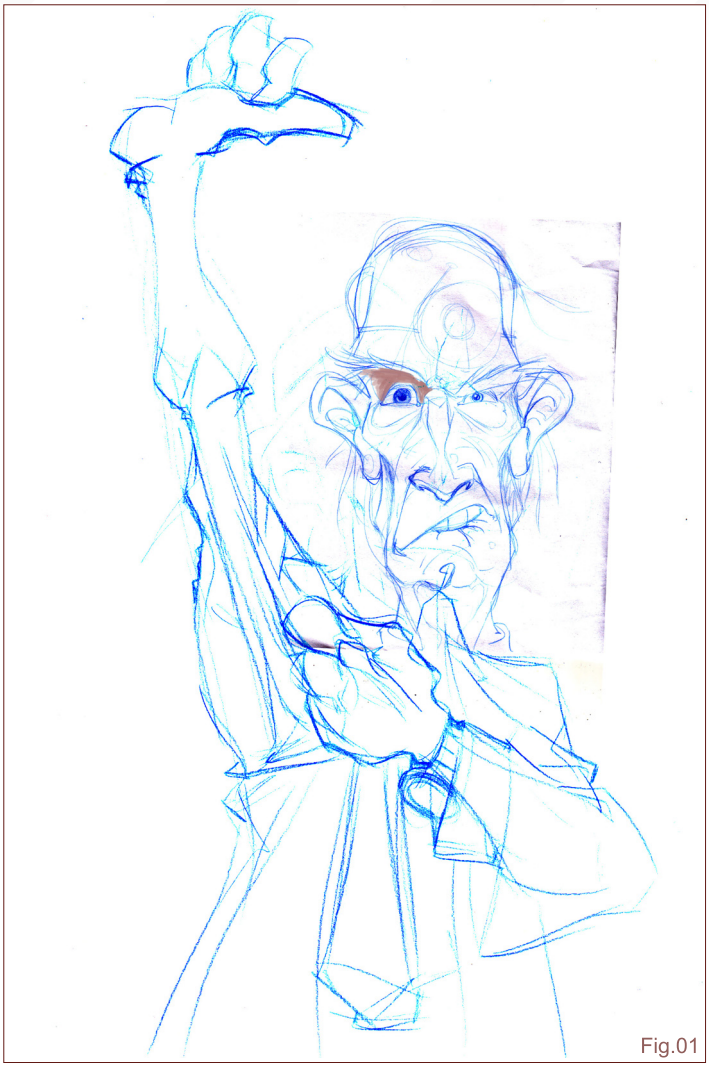
By working simply and adding lots of basic little features, you really can do something pleasing to the eye instead of getting bogged down with the thousands of different brushes and effects available in Photoshop. That being said, there is no excuse not to try it all out to see what works for you!



1ST BSTSK

INTRODUCTION

I've always intended to join the stylised challenge, ever since I first saw it. July's challenge theme ended up deciding for me, since I had an idea that fitted in perfectly with it! The challenge was, for me, the perfect excuse to materialise it in a picture. Sketching it was a little harder though; I tried some dynamic poses exaggerating gesture, but I couldn't quite get it right and so went for a different approach. In the end, I got a sketch I was happy with, and I then started colouring (**Fig.01**).


Fig.01

STEP 1

If there is something that I lack, then that is patience. This makes me jump stages, and frequently leads me to dead-ends I could have avoided with a little more planning. Fortunately, this time it wasn't the case; I took the time to think about the lighting, and I finished the colouring stage quickly and resisted shading and refining too much. I wanted the character to really stand out, so I chose a black-to-green gradient for the background colour, which really made a good contrast with his skin tone (**Fig.02**).


Fig.02

STEP 2

I've been messing around with 3D for a couple of months now, and at the time I painted "The Probe" I had been experimenting with sub scattering, so I positioned the light behind the character to try that in 2D. Once I had the first colours, I began throwing lights and shadows, and refining the face. I always start with the face since it's the most important part of any character. I try not to go further until I like it. I kept shadows on a different layer, as well as the exposed skin zones (head and hands), in order to better adjust colour later on (**Fig.03**).

STEP 3

After rendering the face, some lights and shadows, I moved onto the rest of the picture, detailing and texturing, contrasting and generating volumes. I darkened the background to make the figure stand out even more; I tried some texturing in the foreground to make it look a bit more of an old painting. There's no supervillain without some kind of identifying mark, so besides his face and huge latex glove, I gave him a logotype and a name – he was going to be: "The Probe"! This was maybe the funniest part, and gave me new interest in the image (**Fig.04**).


Fig.03

STEP 4

At this point, the whole image was nothing but a huge load of fun! I hope there'll be these challenges for a long time to come! I had serious doubts about his gloved arm, so I went for a complete rebuild of it. I had originally aimed for a strong, opaque glove, yet I decided while I was at it to go for a thinner, translucent one. I started rendering the sleeve, and then I painted the arm and glove above, paying attention to the stretching lines in the rubber. With the glove being translucent, I had to show the arm beneath. Painting that part was quite interesting! I also repositioned his fingers, trying to improve his contained strength (**Fig.05**).

STEP 5

Once I was satisfied with the arm, I started tweaking all the rest, adding detail and refining,


Fig.04


Fig.05



changing some colour values. In the end I left the background bare, just with the textures and the logotype just slightly noticeable. I got rid of the foreground texture and heavily saturated the shadow layer, which I set to Multiply. Finally, I added background textures to match the back- and foreground detail, and used his villain logotype there.

FELIPE FERNÁNDEZ MORELL

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Or contact them at:

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Speed Painting

digital painting tutorial series volume 1

Introduction

This 102-page eBook is a collection of "Speed Painting" tutorials which have been created by some of the top digital painters around today. The idea behind this tutorial series was for the artist to interpret a one-line descriptive brief (provided by us!), create a speed painting from it and then produce a tutorial showing and explaining each stage of production of the artwork. Some of the artists have also kindly created some unique brushes which can also be downloaded at the end of their Speed Painting tutorials. This downloadable PDF eBook can be followed in most 2D software packages that support paintbrushes and layers.



The featured artists are:

Levente Peterffy
Mikko Kinnunen
Carlos Cabrera
Mike Corriero
Rich Tilbury
Paul Davies
Andreas Rocha
Mark Muniz
Fred Augis
Emrah Elmasli

Chapter 01: Forest Fire
Chapter 02: Scary animal emerging from a forest
Chapter 03: Ship hit by torpedo
Chapter 04: Tornado moving towards farm
Chapter 05: The room made the explorers feel sick with the thoughts as to what had happened there in years gone by
Chapter 06: City street devastated by war
Chapter 07: Evolution had played its part on these creatures as their world heated up, but the thousands of years of forced hard labor had more impact
Chapter 08: The party entertainers' real twisted identities were very far from their bright, colorful disguises
Chapter 09: The citizens of the flooded city now resided in the tallest buildings connected by makeshift bridges.

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Downloadable Tutorial EBook



speed painting

Welcome to the Speed Painting section of the magazine. This month we've asked two artists to produce a speed painting based on a simple, one-line brief. Here we feature the final paintings and the overview of the creation processes.

This month our talented artists, Levente Peterffy and Richard Tilbury, tackle the topic:

THE SURGEONS WERE SHOCKED AND REPULSED WHEN THEY SAW THE PARASITIC CREATURE

LEVENTE PETERFFY

CREATED IN:

Photoshop

A DIFFERENT APPROACH

In this tutorial I will explain my steps behind creating a speed painting for the theme: “The surgeons were shocked and repulsed when they saw the parasitic creature”.

INTRODUCTION

Since this is quite a different method of painting, it deserves a longer introduction. The technique featured in this tutorial is based on extracting all the key components for the painting from a set reference image. When you look at a reference material it already contains the perfect light, shadows, colours, shapes, textures and so on. The main goal with this painting technique is to transform some of these attributes in order to create another image. So with this technique you don’t use references as references are usually used. You don’t simply refer to it every now and then; you literally transform it into another image!



Fig.01

GETTING STARTED

First of all, we need a reference image. So how will you know what reference image to pick when the idea is to transform one image to another?

The colour palette of the painting should have some relation to the reference image’s colour palette. For example, this theme tells us we are in a surgery room. If you imagine this theme in your mind then you can extract some of the colours from there. You’ll have a very strong, directed light source (a surgery lamp) casting sharp shadows. The light will also bring out the strong values of reds in an open cut where you’ll find blood, organs and so on. Okay, so now we know we need to find a reference image which has strong light (a spotlight, if possible), with saturated and strong red values. The subject of this reference image could be anything, really. If you look at the reference image I used (**Fig.01**), you can see that it’s Japanese food! Even if the motive in this reference image is completely different, it does have some of those important attributes we want to use. Now look at my reference image and compare it with the image you have in your mind of a surgery … It has a somewhat similar lighting setup as a surgery would have; you have some red substance which could be used to create the open cut. For me, these attributes are enough, so I can start working on my image.


Fig.02

CREATION BY DESTRUCTION

We have a reference image we can work with, but how will you know what kind of shapes you want to bring out from this reference?

The creation of shapes is probably the most complicated part of the process. I’m going to confuse part of this painting technique here,

because what we want to do is to destroy the reference image – literally – to convey some of the shapes I want to paint.

If we think about the theme in our minds we can see a patient with soft and curved shapes. We also see the shape of a surgeon silhouetted against the brightly lit patient lying on the table. The surgeon should have some zigzag edges because of his clothing.

So when we destroy this image, it's important to keep these shapes in mind. Because what you do when you destroy the image is to try to spot those shapes. When I destroy an image, I usually apply the following things until I start to recognise the aforementioned shapes:

- Cut-out shapes with the Marquee tool and move them around
- Duplicate the image and Transform, Rotate, Scale, Warp
- Apply blending modes and mix the opacities
- Paint randomly using different custom brushes

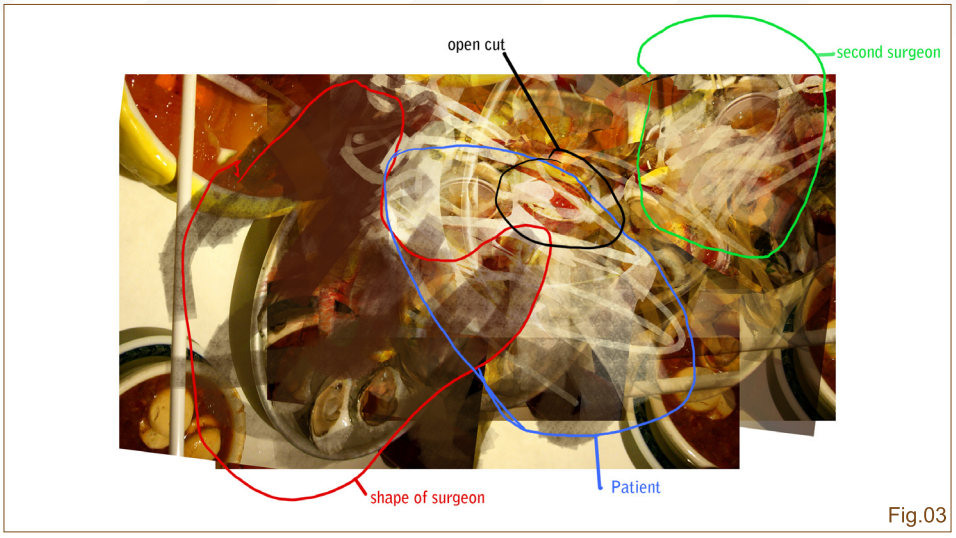


Fig.03


Fig.04


Fig.05


Fig.06

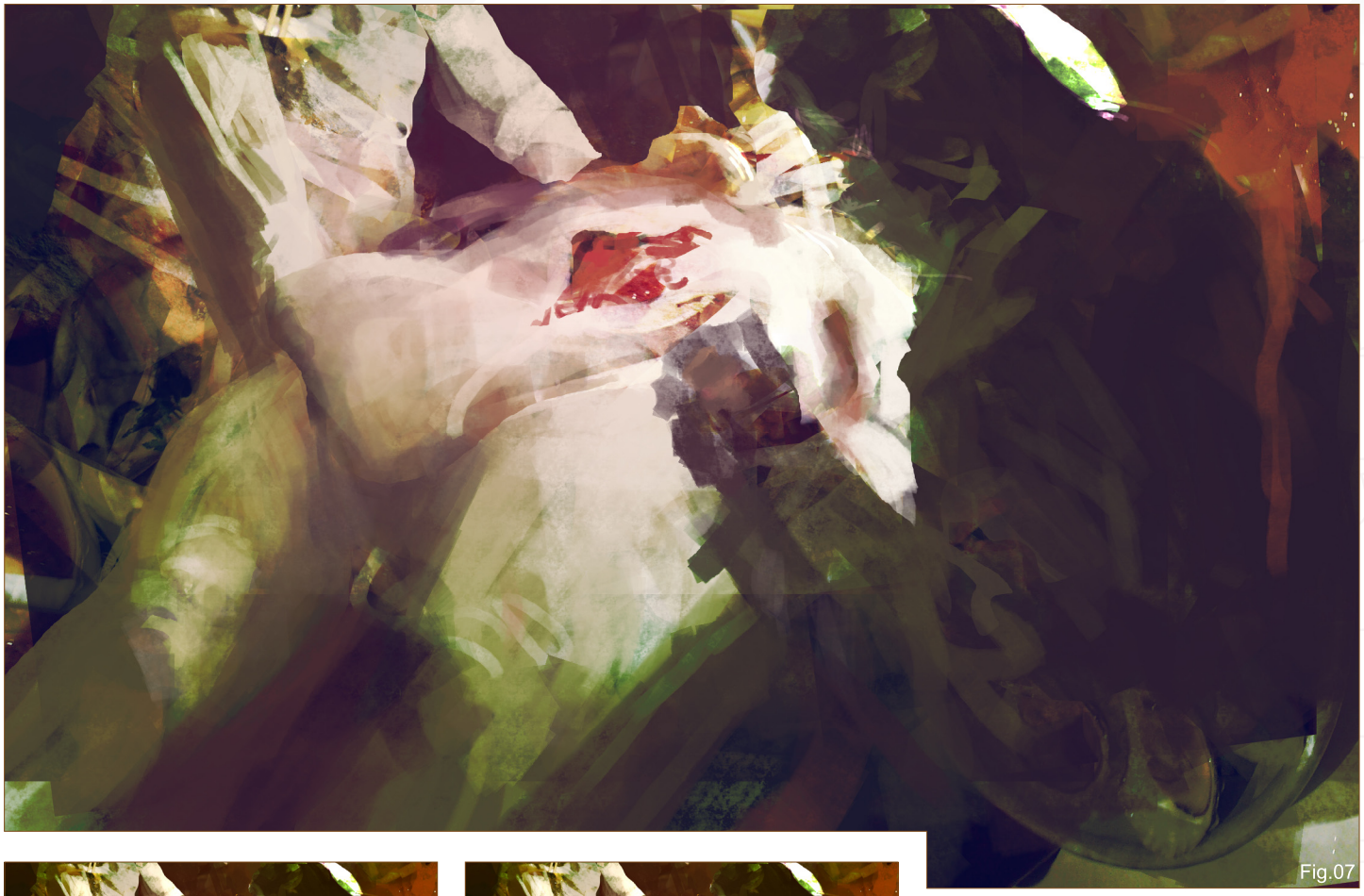
There is no strict way of destroying an image, for me it is basically what comes to mind. You can try anything really!

Now let's look at two images: the first is where I destroyed the reference image (**Fig.02**) and the second one (**Fig.03**) describes how I was able to read some of the shapes. When I feel confident about a shape and feel that it has potential to be the shape of the patient, surgeon or some other subject, I just keep pushing and defining it more. And this takes us forwards to the next step.

DEFINITION

Once we are happy with the loose shapes we need to define them to make them more readable. So this step is all about using the set colours in the image and painting in some definition. Please take a look at **Fig.04, Fig.05** and **Fig.06** to see how the definition becomes clearer as I paint.

In the defining stage we don't use new extreme values of colour for the painting. The colours that are used are picked from the image. With definition work, we not only work on the shapes but also on how the light


Fig.07

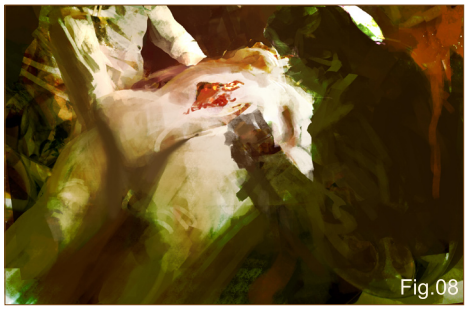

Fig.08


Fig.09


Fig.10

interacts with the shapes - for example, the decay of light on a shape, or the light interaction with it.

Light is painted much more softly on the patient's body than the light hitting the folded clothing. Compare the surgeon with the patient (**Fig.07 – Fig.10**).

For more help, references can be used for the following things:

- Clothing folds
- Light and material interaction on specific clothing
- Metal reflections
- Anatomy for the patient

FINAL TOUCHES

When we have finished defining all the objects so that there are no doubts about the subjects, we can do some colour experiments. These optional experiments, which involve using


Fig.11

painting, gradient maps, variations and blending modes, are used to try to bring out richer colours and make the objects appear more credible. This phase is optional and you can choose to adjust colours more, or simply let the defined painting remain as it is (**Fig.11 – Fig.14**).


Fig.12


Fig.13

For more information about this working process, please feel free to visit my website where I have put up some video tutorials that show you how a reference image can be transformed into another painting.


Fig.14

LEVENTE PETERFFY

For more from this artist visit:
http://www.leventep.com
Or contact:
lp@leventep.com





RICHARD TILBURY

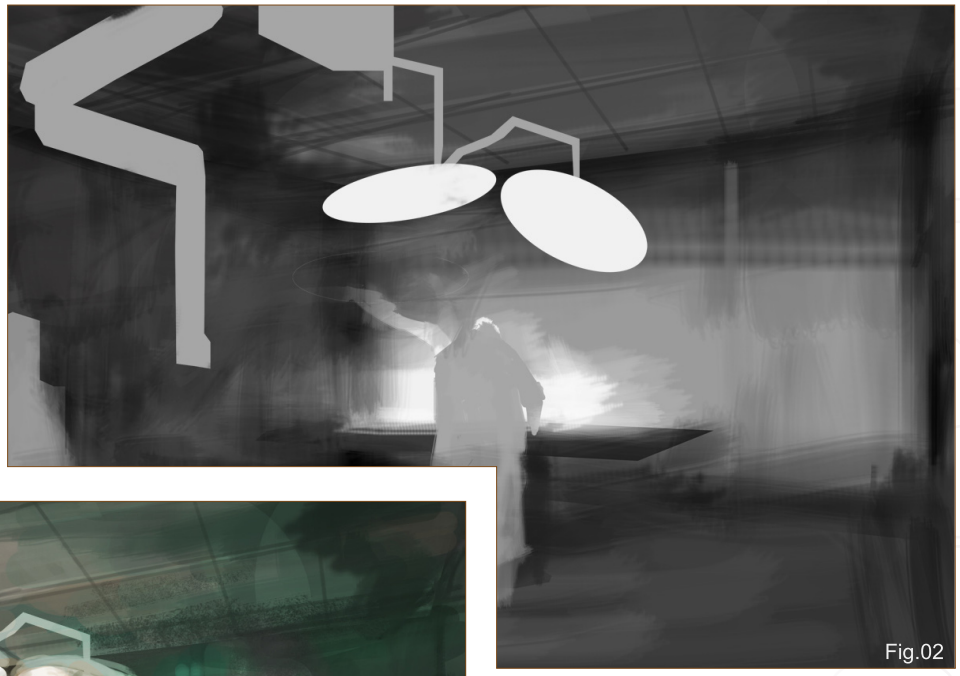
CREATED IN:

Photoshop

INTRODUCTION

For this speed painting I was not sure what the parasite would look like, only that I wanted it to remain somewhat mysterious and left to the viewer's imagination. The notion of a parasite is quite unpleasant as they not only tend to acquire a host through devious means, but also tend to thrive at their host's expense. I do find the idea a bit scary to be honest, especially since my brother picked one up once and it emerged from his lower back months later!


Fig.01


Fig.02

BLOCKING IN

As per usual I began by roughly blocking in the light and dark areas and establishing the perspective. The operating table would eventually be illuminated by ceiling lights above the main focal point - the parasite (**Fig.01**). I used the standard Hard Round Airbrush and Spatter brushes with opacity set to pen pressure during this stage. You can see here that the surgeon who will be performing the operation has his back to the viewer, so we cannot see exactly what he is doing. The table in front of him is lit by the yet to be painted lamps.


Fig.03

With this initial composition blocked in, it was time to start putting in some shapes that would help describe the equipment and in

particular, the adjustable lamps. I used the circular marquee tool to create the oval shapes of the lamps and the lasso tool to block in the equipment that is attached to the ceiling. I noticed from doing some research into operating theatres that there is an abundance of all sorts of technology used to monitor a patient during an operation and so wanted to fill in some of the space with this type of thing (**Fig.02**).

COLOUR SCHEME

I decided that this compositional structure was okay to continue with and so started to paint in a rough colour scheme on a separate layer set to Overlay mode. I began by using typical medical green, mainly because it would help emphasise the blood that would at some point find its way into the image! In fact as I started painting in shades of the colour I could not help but add in some arterial spray just for fun, using a custom brush which I often use for debris (**Fig.03**).

With a rough notion of the colour scheme, I moved on to refine some of the simple shapes and give them a clearer identity. I gave the foreground objects some detail as well as painting in a viewing window in the background. The ceiling lights were duplicated and then were given a Gaussian Blur to provide a little glare. I used the suggestion of the random



Fig.04

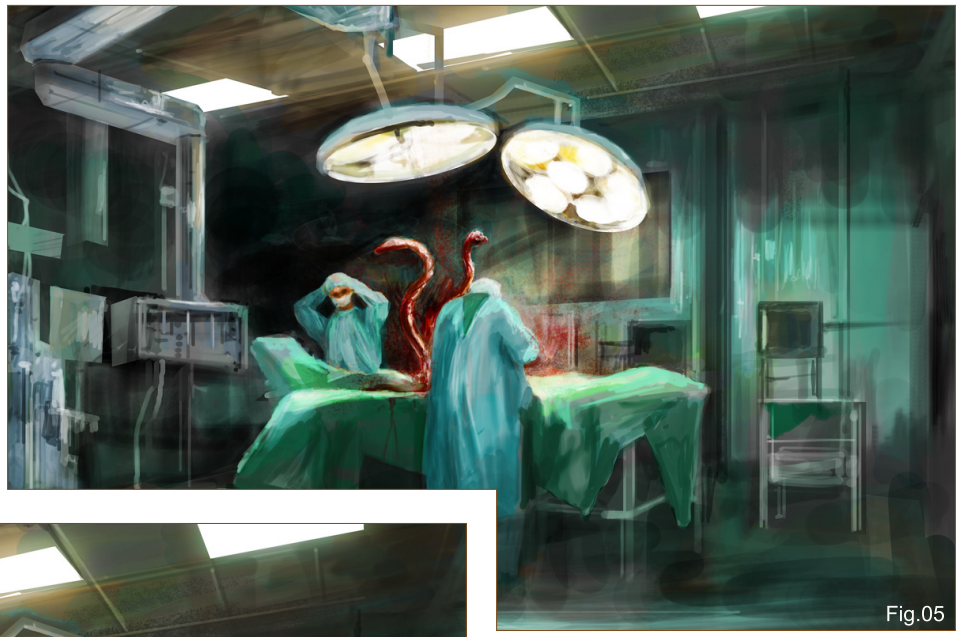


Fig.05



Fig.06

tentacle shape from **Fig.01** (above surgeon's left shoulder) to create some kind of writhing organism reaching upward like a serpent (**Fig.04**).

REFINING THE PICTURE

At this point the image needed the inclusion of a least one more character to tie in with the title, as well as further definition to the parasite itself. I painted in a second character holding his head in disbelief and tried to show he was leaning away from the table in his shock at what he was seeing (**Fig.05**).

I added some volume to the sheeting to suggest that there is a covered body or organism on the table, as well as adding some definition to the parasite. Using the Hard Round brush I cleaned up some of the edges, mainly around the focal point in the room (e.g: the surgeon and operating table).

At this stage the image was almost complete, but the parasite looked like two snakes and just did not work at all and so needed to be resolved before I could call the image finished.

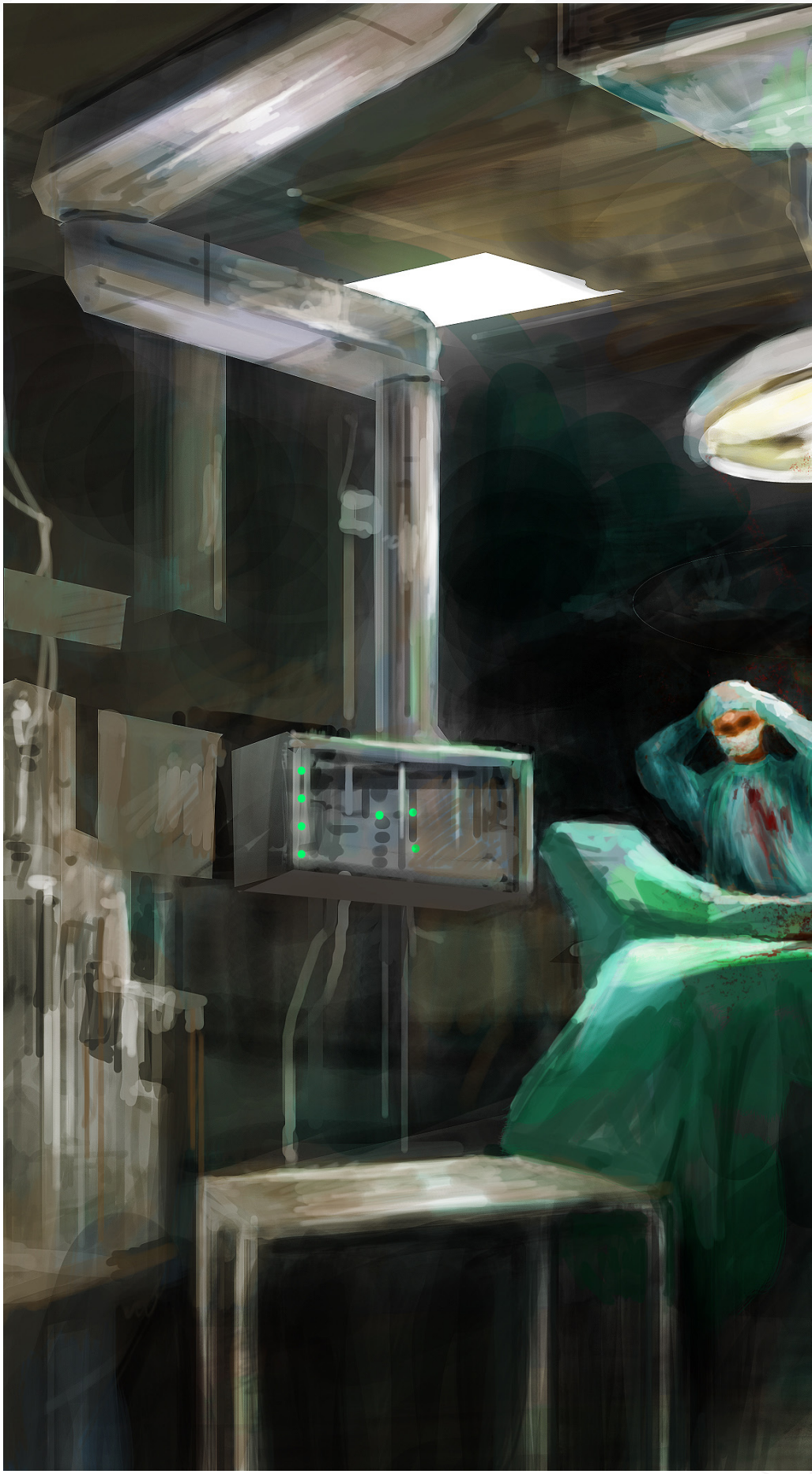
FINAL STAGES

As I looked at the parasite problem, I decided that I still wanted some type of tentacle emanating from the table, but just far more subtly. As I began to erase the shape, I pictured the section at its base as being the main body, which was far less explicit. I added a cut across it and some small veins and things started to improve. I erased most of the tentacle down to a few small, plant like strands which I was far happier with – it appeared less obvious and left more to the viewer's imagination (**Fig.06**).

To help enhance the colour of the surgeons and operating table, I changed the room to a different colour which added more contrast.

The change to the parasite helped the picture feel far nearer to completion now, but I thought that perhaps one more shocked surgeon would fulfil the brief more successfully. The nearest character could well be shocked, but we do not know for sure so another person was required.

The final result can be seen here (**Final**).



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"THE TERRAFORMING [EARTH-SHAPING] OF STERILE PLANETS REQUIRES THE AMAZING FEATS OF PLANETARY-WIDE ENGINEERING. THE TERM ITSELF IS WIDELY ATTRIBUTED TO A SCI-FI WRITER, JACK WILLIAMSON IN HIS BOOK TITLED "COLLISION ORBIT"..."



SPACE PAINTING

I - PLANETS AND STAR FIELDS

PART 1: STARS + NEBULAS - JULY 2008
PART 2: BARREN WORLDS - AUGUST 2008
PART 3: BARREN PLANETS - SEPTEMBER 2008
PART 4: GAIAN PLANETS - OCTOBER 2008
PART 5: COLONISED PLANETS - NOVEMBER 2008

II - TRANSPORT

PART 6: SPACESHIPS - DECEMBER 2008
PART 7: CAPITAL SHIPS - JANUARY 2009
PART 8: SPACE STATIONS - FEBRUARY 2009

III - ENVIRONMENTS

PART 9: SCI-FI HANGAR - MARCH 2009
PART 10: SPACE BATTLE - APRIL 2009
PART 11: MINING THE ASTEROID FIELDS - MAY 2009
PART 12: SPACE COLONIES - JUNE 2009

SPACE PAINTING
PART 4: GAIAN PLANETS

CREATED IN:

Photoshop

TUTORIAL OVERVIEW

Settling into a longer term view, the fourth aspect of this 12-part tutorial series on space and sci-fi art looks at the search for new Earth-like worlds, the colonisation of planetary surfaces and settlements within space.

Space exploration has had a few jump starts and periods of slow growth. Ultimately, the aim would be to travel beyond the stars and establish permanent self sustaining outposts within the regions of known space.

The strategies for these are initially twofold:
1. Settlement within contained man-made biospheres, necessitating reliance of life support systems and existing resources;
2. Inhabitation of planetary surfaces by engineering sterile planets into life via a process known as “terraforming”

In this issue, we will focus primarily on the search for Earth-like worlds, known in some fields as “Gaian planets”, and the alternative of terraforming, as the two main viable tenets of space colonisation.

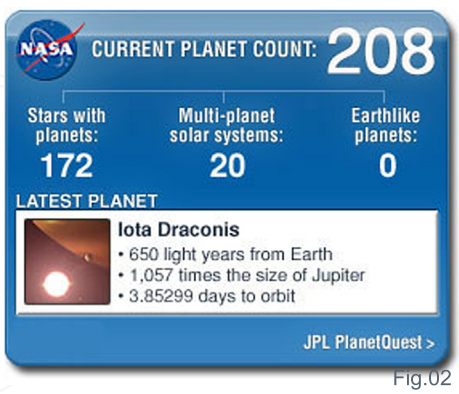
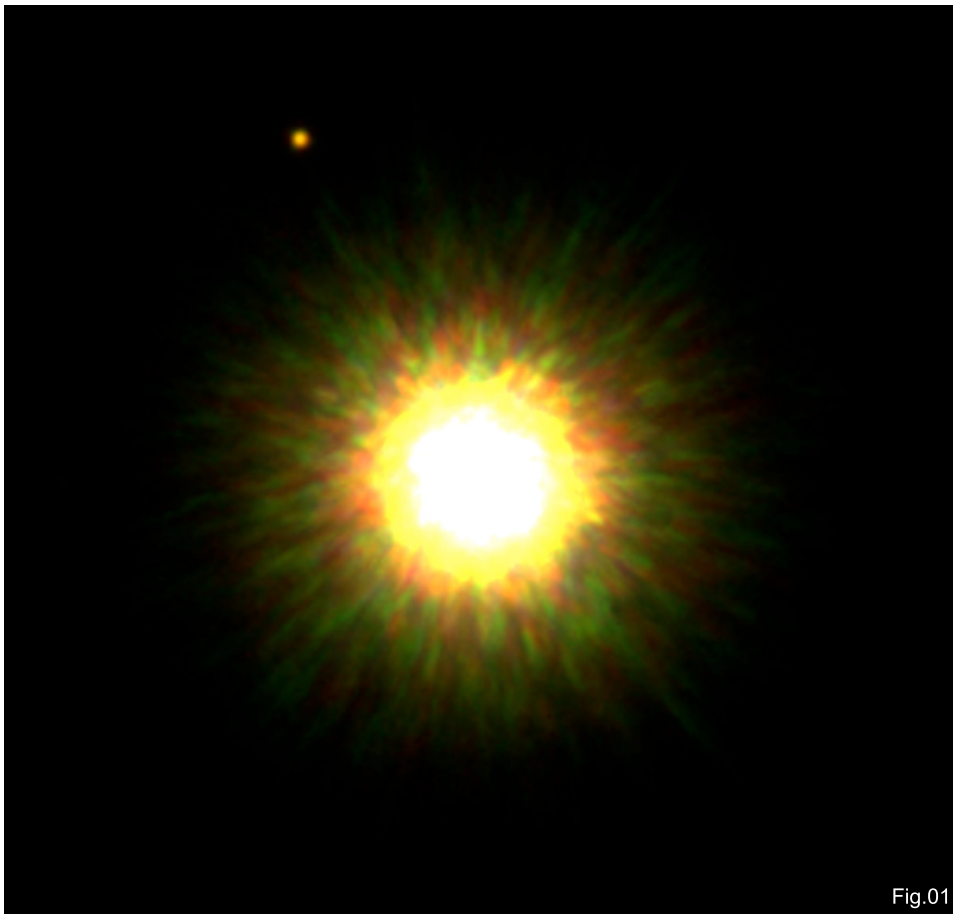


Fig.02




Fig.01

I: THE SEARCH FOR A NEW HOME

On September 15th 2008, astronomers of the University of Toronto found the first extra solar planet to orbit a parent star similar to our Sun (**Fig.01**). This candidate planet has eight times the mass of Jupiter and lies 330 times the distance of the Earth-Sun from the young star: 1RXS J160929.1-210524 (which lies about 500 light-years from Earth!).

The challenge of finding Earth-like (gaian) planets is challenging, because many new planets are either too hot or cold due to their relative proximity to their prime star. In addition, the planets found so far have masses the size of Jupiter or more. Gaian planets tend to be much smaller and are thus rarer as they have all the right ingredients for life and are an appropriate distance from the star.

The key ingredients when identifying if a planet can support life are evidence of the following:
- oxygen
- liquid water
- carbon Dioxide
- signs of biological activity (e.g. methane)
- light analysis (to determine if a planet has atmosphere)

To date, the current search for habitable planets continues, spearheaded by NASA’s JPL Planet Quest Mission (http://planetquest.jpl.nasa.gov) involving exoplanet exploration; i.e. exploring the local galactic neighbourhood for future signs of habitable Earth-like planets (**Fig.02**).

The prime candidates to lead a search would be the:

1. Keck Interferometer – combines the lights from the world's largest optical telescopes to study dust clouds around stars, where Gaian planets may be forming

2. NASA Kepler Mission (to be launched in 2009) – aims to survey and chart our Milky Way galaxy, and thus detect and characterise multiple Earth-sized and smaller planets

3. SIM Planet Quest – the mission is to accurately measure the distance and relative position of stars via astrometry. This will help pin-point any Earth-sized planet more accurately. In addition, with an accurate star map, this will allow us to better navigate, locate and travel to these stars one day

4.Terrestrial Planet Finder – a hundred times the power of the stalwart Hubble Space Tele scope, the TPF will provide the first photographs of nearby planetary systems

Currently, the current planet count is as follows:

Total exoplanets: 313

Stars with planets: 268

Multi planet solar systems: 20

Earth-like (gaian) planets: 0

ILLUSTRATING AN EARTH-LIKE HOME

The illustration of an Earth-like planet can be simplified in two steps:

1. Blocking-In a Gain Planet

2. Fine Detail Phase

Using this process, we can paint any planetoid mass with a bit of pre planning (**Fig.03**).



Blocking in a Gaian planet Fig.03

BLOCKING-IN A GAIAN PLANET

1. Apply a Basic Star Field: Using either a custom scatter brush or manual placement, apply a liberal scattering of fine stars against an 80-90% grey background. These will serve as background stars.

2. Bright Stars: For application of various fixed objects, these will tend to be the brightest points of light on the canvas.

3. Coloured Stars: Ensure a fine gradation of blues, greens and reds are applied onto the stars via a subtle shift of colour balance/hue/saturation layer options. These can be set to around 5-10% and barely perceptible.

4. Finely Rough-Out Planetary Masses: Gaian planets may take on various appearances, from a large land mass to a watery planet, from a singular land-locked mass to a multi-continental planet. In this instance, we have gone primarily

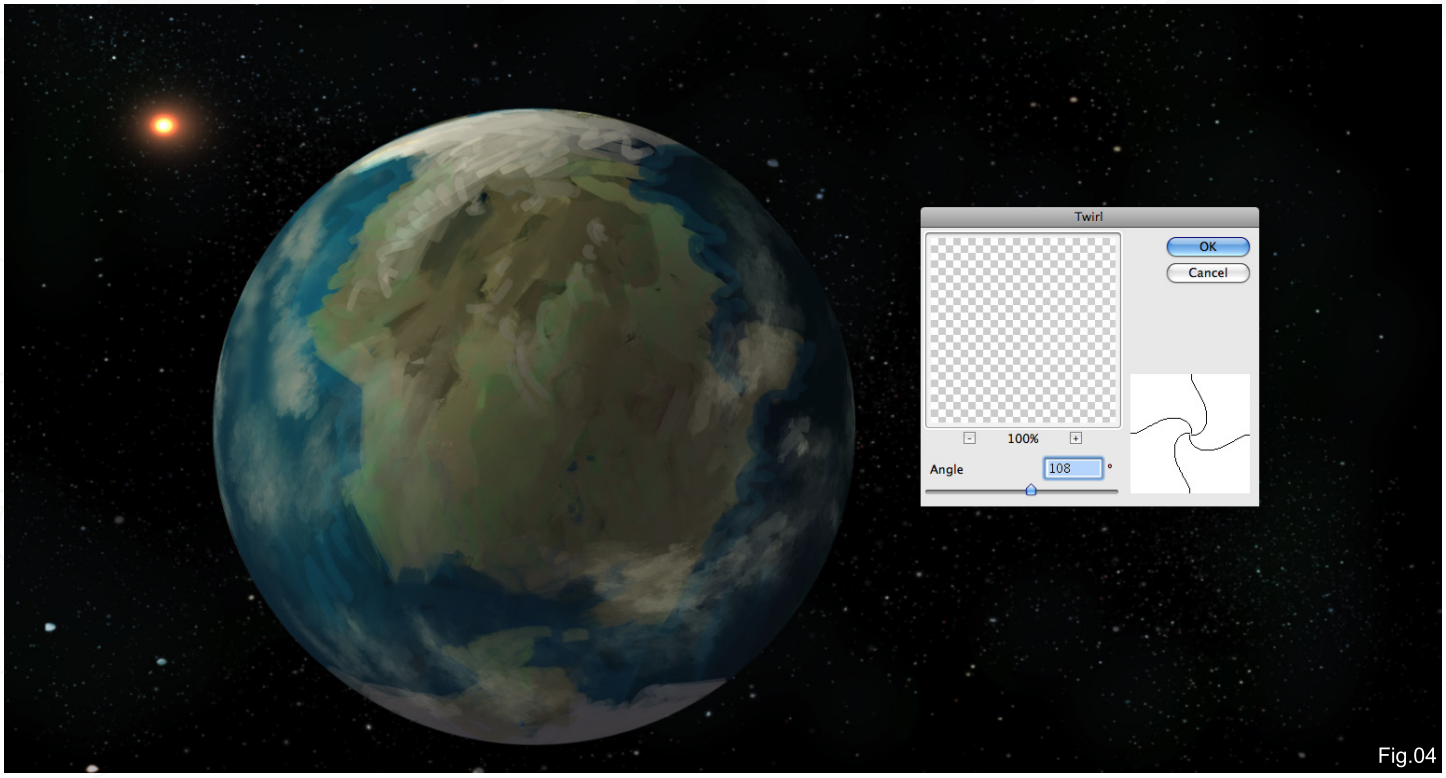


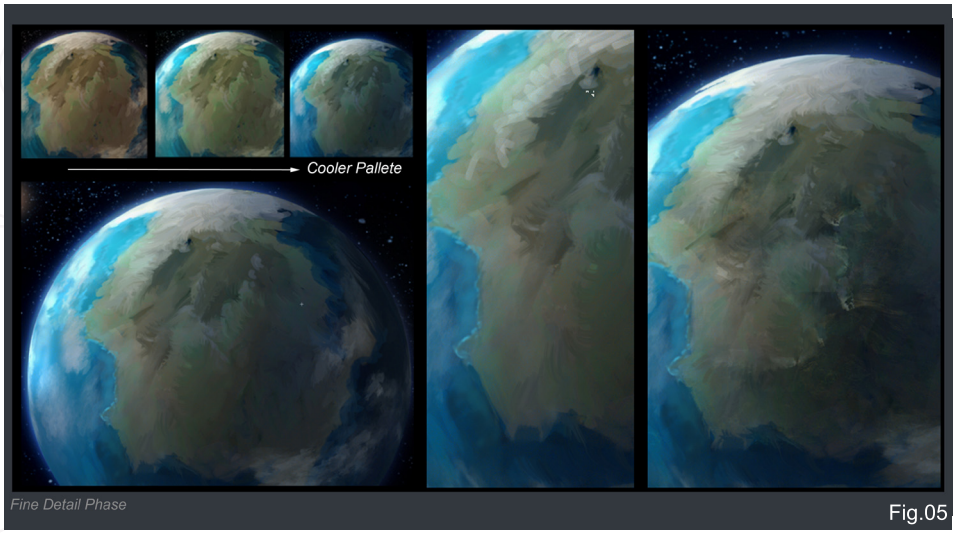
Fig.04

with a singular land mass. Rough this in – in any manner or form – using a selection of neutral-based colours.

5. Reference: Analysis of various reference photos shows us that land masses are primarily an ochre/red to tawny colour, while ice tends to be depicted as blue-white to white-yellow. Occasionally verdant planes take on a traditional green appearance (dependant on the cloud cover); deeper patches of water take on a dark green to deep blue colour, and relatively shallow water a lighter crystal green/blue appearance.

6. Apply Focal Lighting & Detail: A planetoid is roughly spherical and as such can be lit similarly using a focal light source, similar to observing light on a snooker ball from various angles and directions (except ambient lighting is minimal in space).

7. Scale Distances: This would be a good opportunity to apply the Gaussian blur filter (or atmospheric perspective/fog), thus allowing the composition to read: background, faint stars and the star as the brightest object, leaving the main planet in focus.



Fine Detail Phase
Fig.05

8. Add Atmosphere: In this instance, the addition of clouds on both the light and dark side of the planet helps to add that layer of 3-dimensionality and depth.

FINE DETAIL PHASE

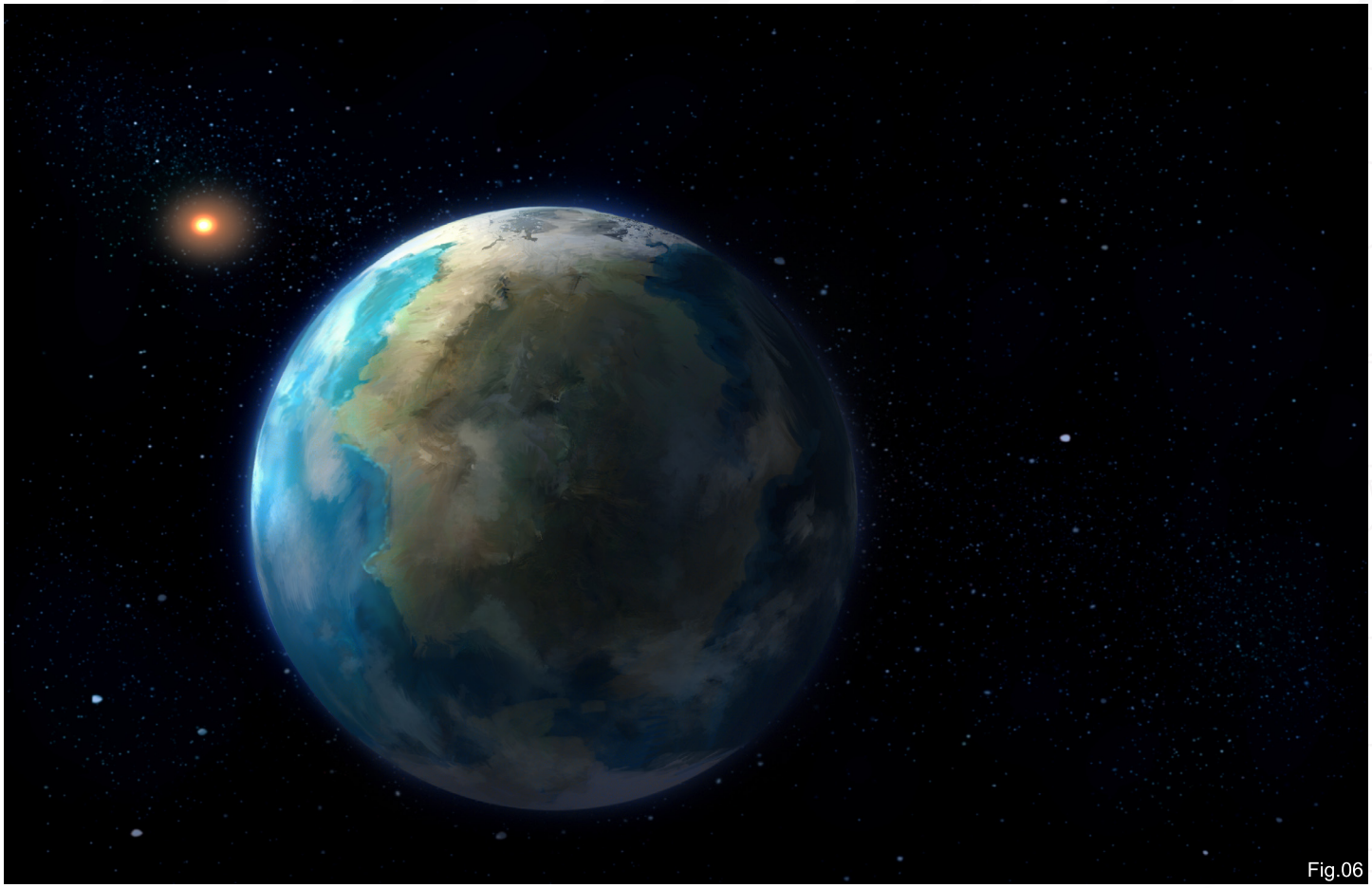
For the finer aspects of rendering an Earth-like planet (or any planet with an atmosphere), the realistic rendition of clouds of vapour is the key.

1. Twirling: Applying a circular selection to the planet, you can apply the twirl function moderately to suggest moving currents (**Fig.04**).

2. Colour Palette: The next objective is to bring the colour palette into a cooler blue green feel (**Fig.05**).

3. Colour Palette: Using the Colour Balance option, one can gradually shift the warmer hues to the periphery and all other areas into a cooler saturated shadow.

4. Atmospheric Glow: Most artists tend to exaggerate the atmosphere by providing a soft glow around a planet. Whilst this is not strictly a highlighting exercise, the upper atmosphere for Gaian planets tends to be thin, not as thick as


Fig.06

gas giants such as Jupiter/Saturn. So the main task is to ensure a very subtle approach is used.

5. Oceans & Shores: To suggest subtle depth, darker parts of liquid surfaces will take on a saturated darker blue (for oceans) and a lighter blue/green for shallower bodies of water.

6. Land Masses: The final defining moment is to suggest mountain ranges, planes and tundras. In our fictional image we can depict giant mountain ranges which are partially snow-capped; from an external view, such sharp details are rarely seen until within closer range.

Hopefully, with all the details roped in, the final image should look similar to **Fig.06**.

II: TERRAFORMING FOR A NEW HOME

The terraforming (Earth-shaping) of sterile planets requires the amazing feats of planetary-wide engineering. The term itself is widely attributed to a sci-fi writer, Jack Williamson in his book titled "Collision Orbit", dated 1942, which has since come into popular and mainstream use. For the subject matter itself, Martyn J Fogg has since published numerous articles about terraforming and has devised various levels, classifications and ease of terraforming.

TYPES OF TERRAFORMING:

1. Planetary Engineering – the application of technology for the purpose of influencing the global properties of a planet
2. Geoengineering – planetary engineering applied specifically to Earth. It includes only those macro engineering concepts that deal with the alteration of some global parameters, such as the Greenhouse Effect, atmospheric composition, insulation or impact flux
3. Terraforming – a process of planetary engineering, specifically directed at enhancing the capacity of an extraterrestrial planetary environment to support life as we know it. The ultimate in terraforming would be to create an open planetary biosphere emulating all the functions of the biosphere of the Earth – one that would be fully habitable for human beings
4. Astrophysical Engineering – taken to represent proposed activities relating to future habitation that are envisaged to occur on a scale greater than that of "conventional" planetary engineering

EASE OF TERRAFORMING [OF CANDIDATE PLANETS]:

1. Habitable Planet (HP) – a world with an environment sufficiently similar to the Earth so as to allow comfortable and free human habitation
2. Biocompatible Planet (BP) – a planet possessing the necessary physical parameters for life to flourish on its surface. If initially lifeless then such a world could host a biosphere of considerable complexity, without the need for terraforming
3. Easily Terraformable Planet (ETP) – a planet that might be rendered biocompatible,

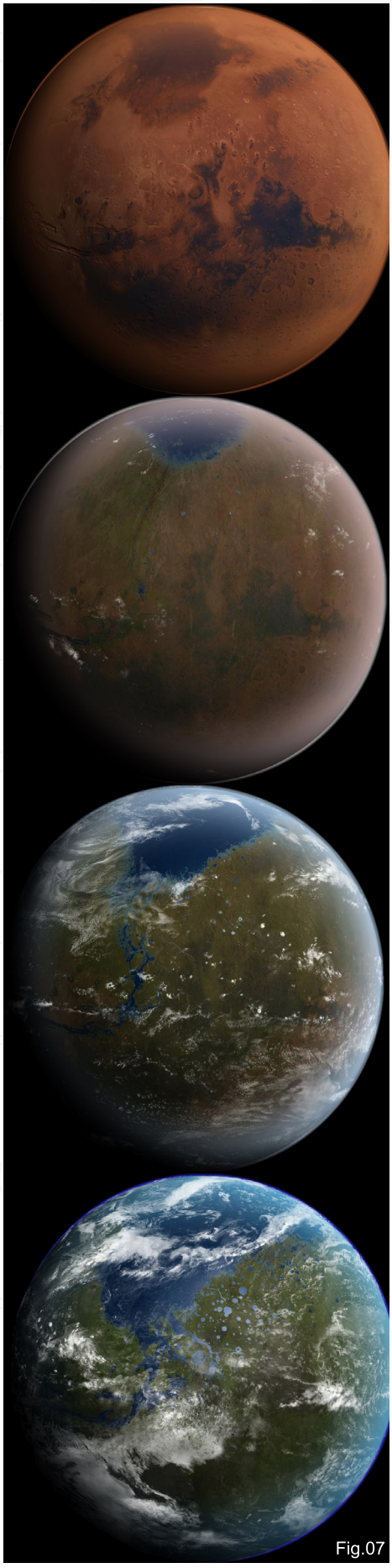


Fig.07

or possibly habitable, and maintained so by modest planetary engineering techniques and with the limited resources of a star ship or robot precursor mission

TO A FUTURE BLUE-GREEN MARS!

Here is an artist depiction of the possible transformation from a red Mars to a green Mars, by Daein Ballard, 2006 (**Fig.07**).

Of all the possible planets within our Solar system, we have four terrestrial planets, and of those four only Mars proves to be a suitable biologically compatible planet for future human colonisation – but not without great effort and challenge, notwithstanding issues involving ethics, logistics, economics, politics, methodology and possible xenobiology of altering the environment of Mars.

Nevertheless, a generally accepted view would be to firstly establish a permanent human settlement on Mars, followed by a gradual, phased terraforming process, as our technology and understanding hopefully improves.

The remainder of this tutorial deals with the aspect of envisioning this futurist view of humankind, and looks at possible methods we have to undertake to achieve this aspect.
To terraform Mars, there are a couple of options – once the logistics of getting to Mars in a regular Mars-Earth transit becomes the norm! So firstly, let's analyse the similarities and differences between Mars and Earth, and the obstacles that stand in the way of producing a new planet sustainable of supporting human and organic life.

FACTS ABOUT MARS

In a nutshell, Mars has conditions similar to a proto Earth (**Fig.08**), with 1% of Earth's atmosphere. Terraforming would be to accelerate this process to a level able to sustain organic and human life.
Here is a current up-to-date factual rundown of data pertaining to Mars:
Similarities – Mars has a solar day (sol) of 24.6 Earth hours (24 hours, 39 minutes and 35.244 seconds). Overall, Mars is less dense and smaller in volume compared to Earth, but has a similar land mass of 28.4% (compared to 29.2% of Earth's). The Martian atmosphere contains 95% carbon dioxide, 3% nitrogen, 1.5% argon, trace amounts of water, and no oxygen – verses Earth's 78% nitrogen, 21% oxygen, 1% argon, and 0.03% carbon dioxide.
Differences – the surface gravity is a third of Earth's, and in its current state much colder (average surface temperature of -63°C and as low as -140°C). The amount of solar energy is half of that reaching Earth, but without the thick atmosphere of Earth it has roughly the same amount of solar energy. Lastly, the Martian atmosphere primarily consists of CO_2, allowing

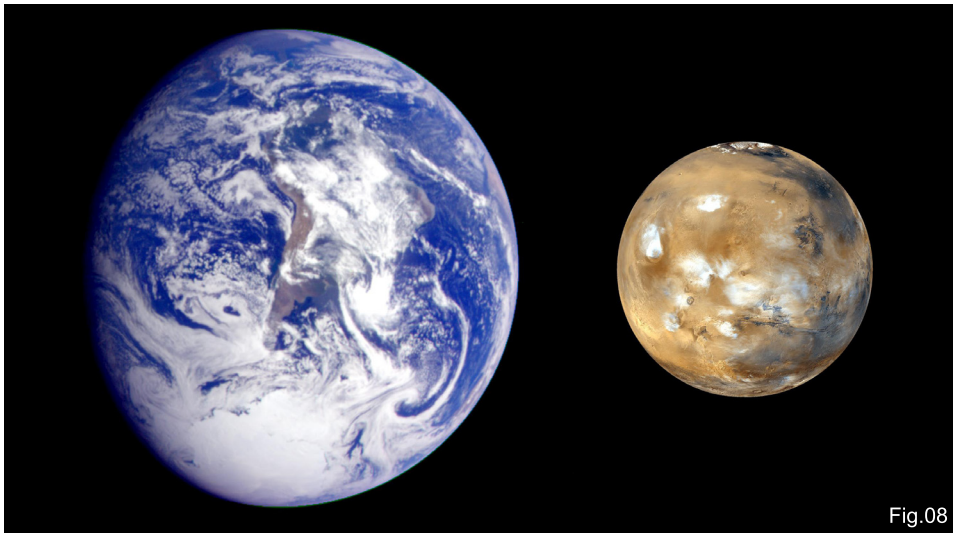


Fig.08

the possibility of supporting plant life and, during the short term, requires pressurised habitable structures.

Ethics – the question of any pre-existing life on Mars is still indeterminate, and any future terraforming measures will possibly run into hostile pro-Mars activists, once permanent human settlement exists on Mars.

Economy – the immediate costs of colonisation, habitation and terraforming of Mars will be immense, with a long term economic export still to be indeterminate (in terms of raw materials) in recompense. It is speculated that perhaps some new advancement in space materials, engineering and technology could be the trade off.

Communication – Mars currently has three functional spacecraft: Mars Odyssey, Mars Express, and Mars Reconnaissance Orbiter, plus two robotic Mars exploration Rovers: Spirit and Opportunity. Communication with Earth ranges from 6.5 minutes to 44 minutes, with a cut off of two weeks every synodic period (i.e. when the sun is between Mars and Earth). With additional communication relay satellites at L4/ L5 Earth-Sun Lagrange points, these could be improved in the near future.

HIGHLIGHTS ABOUT MARS

- Water & Ice – the largest concentrations are within the North to South polar ice caps. Additional sources of water are hinted within various caves, buried oceans, gullies and craters
- Mount Olympus – the highest mountain in the solar system rising 26km in height
- Valles Marineris – the longest and deepest canyon in the solar system ranging 4500km long, 200km wide and up to 2-8km deep

Fig.09 shows various angles and positions of Mars from the Mars global surveyor, with close-up views over the northern hemisphere.

THE MARS DATA SHEET

Martian Day (or Sol): 24.6 Earth hours

Martian Year: 1.88 Earth years = 687 Earth days = 669 Mars days

Distance from the Sun: Minimum 206,000,000km to Maximum 249,000,000km

Distance from Earth: Minimum 56,000,000km to Maximum 399,000,000km

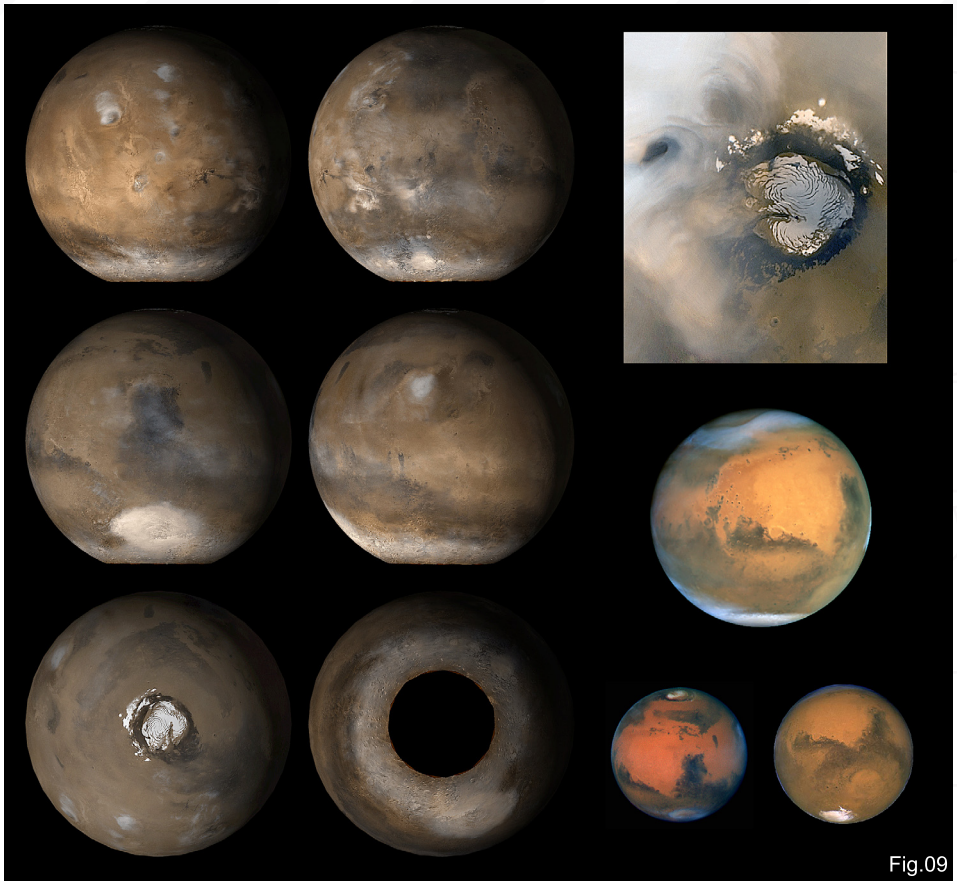
Size: Diameter = 6792km vs. 12,756km for Earth

Surface Gravity: 0.38 (about 1/3) times Earth's gravity

Temperature: -125°C (-193°F) to 25°C (77°F)

Moons: Phobos and Deimos

Mars missions: 37 (to date)


Fig.09

TERRAFORMING MARS

Having pre-used the existing Mars data, the main challenges of producing a sustainable Mars biosphere would be to:

1. Increase surface temperature
2. Increase the atmosphere
3. Extend regions of liquid water
4. Achieve favourable conditions for assembly of complex organic molecules
5. Achieve sufficient energy sources to sustain metabolism

Once these basic criteria have been met, the advancement of terraforming by seeding the planet with plant life and microbiological life forms can exist, and thus help accelerate the production of breathable oxygen.

RED-TO-BLUE MARS

To fulfil the criteria of a warmer surface temperature to above freezing, it has been calculated that a minimum of 4°C is required to snowball the re-warming process. Ultimately, this will allow water to become liquid and generate sufficient atmosphere for habitation. To achieve this process, there are a few additional options, ranging from relatively moderate impact to drastic.

To tackle all three in one swoop, we have to – ironically – find methods of achieving a Greenhouse Effect on Mars! Here are the various ideas proposed:

1. Placement of Orbital Solar Reflective Mirrors – Solar Power Satellites (SPS) encircled around the poles could generate sufficient heat

to gradually melt polar ice caps in controlled amounts. These would help thicken the atmosphere, and with a further temperature rise of 10°C this could release further significant CO2 from the Martian regolith (surface soils).

2. Drilling – it is suspected that the surface permafrost layer of Mars might contain pockets of water, hot water vapour or other gasses, at a drilling depth of 800 metres. Water vapour itself is an effective greenhouse gas and in its vaporous state has an important heat-trapping "Greenhouse Effect" .

3. Factories – the installation of manufacturing plants and factories that tend to produce CFC gasses as a by-product, and thus contribute in due course to the Greenhouse Effect.

4. Robotics – nanobots and large scale autonomous terraforming robots could be manufactured to process the abundant CO2 and water to generate sufficient oxygen and nitrogen, once a sufficiently thick atmosphere has been produced.

5. Impactors – alternatively, one could radically harness asteroids near Mars, drill sufficient propellant onto the surface and redirect these asteroids to impact the desolate areas of Mars. The impact of such asteroids would be sufficient to generate a modest amount of heat, gas and dust, if near the polar ice caps, to help kick start the terraforming process. Such candidates could be similar to the recent asteroid 2007 TU24, which modestly measured 150-160m metres. (The next asteroid of a similar significant size is projected to enter near Earth/Mars in 2027.) It would simplistically be a matter of tracking around 7,000 of these near Earth/near Mars objects and redirecting their course to the intended target.

6. Seismic Events – another radical alternative would be to cause the eruption of local volcanoes in sufficient regularity and quantity to contribute towards the greenhouse process

MARS IMPACT

Actually, the aspect of impacting onto Mars is not new! For quite a while now, scientists have pondered at a major difference of Mars's

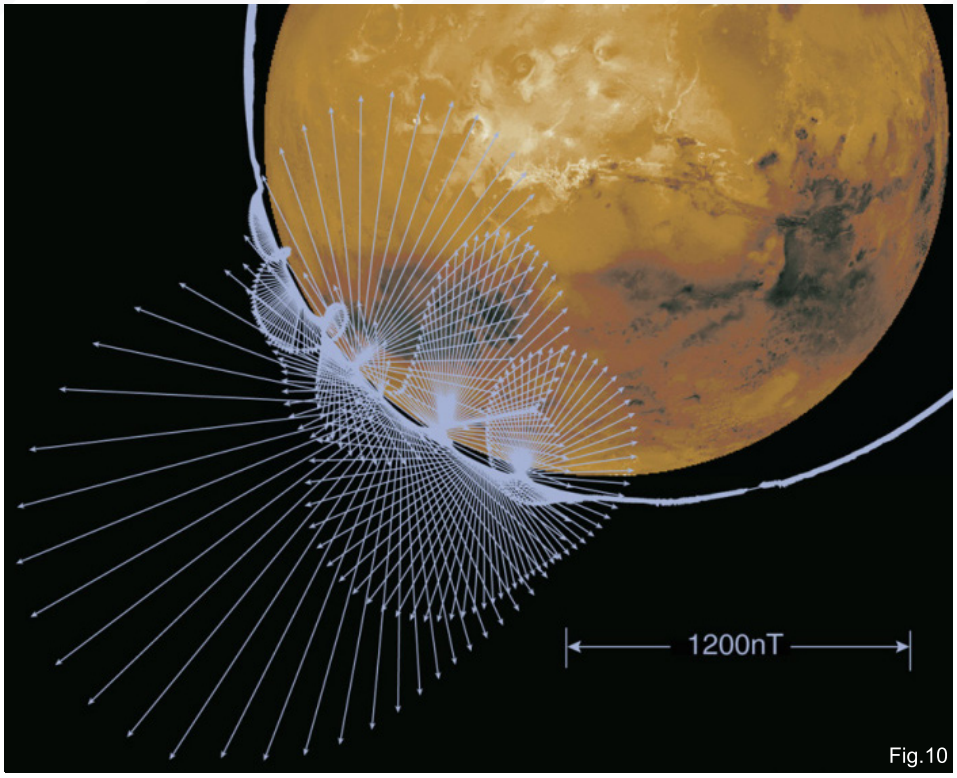


Fig.10

sudden loss of atmosphere, and an asymmetric magnetic field localised in the southern hemisphere (first observed by the Mars Global Surveyor in 1985).

This dichotomy of a smoother, thinner northern hemisphere crust, versus a magnetised southern hemisphere, has been a longstanding mystery until now. In a recent study published in the Science Journal 2008 (DOI: 10.1126/science.1161119), the implication of this suggests an oblique long angle impact by a giant mass/asteroid, said to be as large as the size of Earth's moon, striking the upper hemisphere of Mars.

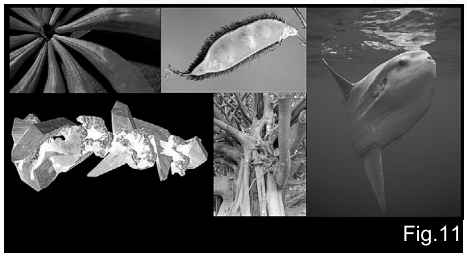
Fig.10 shows Mars's magnetic field, as observed by Mars Global Surveyor in 1985.

Sabine Stanley from the University of Toronto in Canada, and her team, have provided for an intriguing and compelling study using computer-generated studies of heat flows that tie these various congruities together. Within the study, the large scale impact would explain why the northern hemisphere is so much thinner and virtually flat, as a result of the warming of the mantle there. This results in less flow of heat between the mantle and core boundary, and thus leads to non-existent magnetism. In contrast, the surviving southern hemisphere would have a greater heat gradient and flow exchange, explaining why the resultant rocks have a strong localised magnetic field.

III: SEEDING A POSSIBLE HOME

Advancing the future timeline, we can extrapolate that to expand beyond the current solar system we could look for habitable planets with similar Sol-like stars.

The barrier between technological inventions and advancements, described in science-fiction, is often reduced, and inventions such as the mobile phone (inspired by portable gadgets such as the communicators featured in Star Trek) and nanotechnology (a famous Japanese manga, such as Dragonball, regularly described pill-sized devices that could encapsulate any medium, device or requirement) are different ends of the spectrum of what inspiration can help achieve with mankind's ingenuity.


Fig.11

With regards to the purpose of finding new planets for habitation and terraforming, let's look at future star ships to seed the stars, after the fashion of replicators or von Neumann devices. The theory would be that large, self-replicating devices could traverse the stars in groups and help identify and seed planets ready to be terraformed, priming them for future habitation. On board each ship could be a whole host of mini ark-like ships carrying compact DNA banks, raw materials and technology, to help in this vast transformation process. Naturally, only sterile worlds would be selected for this purpose, and as such a vast bank of space to planet-side probes would be produced to scout and scan various planets within each solar system.

BUILDING A SEED SHIP

Whilst designing a futuristic spaceship allows one to be creative and apply a liberal amount of creative license, being able to both inspire and convey the purpose of these large replicating transports from a purely visual aspect is both a worthy industrial design and aesthetic challenge in itself!

Features that one could take inspiration from are as follows (**Fig.11**):

- Seed/pod shape
- Giant sunfish
- Giant floating tree ships
- Organic and minimalist sculpture and forms

To complete our tutorial, here is an alternative and rapid method of designing a transport within an illustration (**Fig.12**). Utilising the illustration of the gaian planet developer earlier, we will crop into the image (as the main concentration is on the space seed ship rather than the planet).

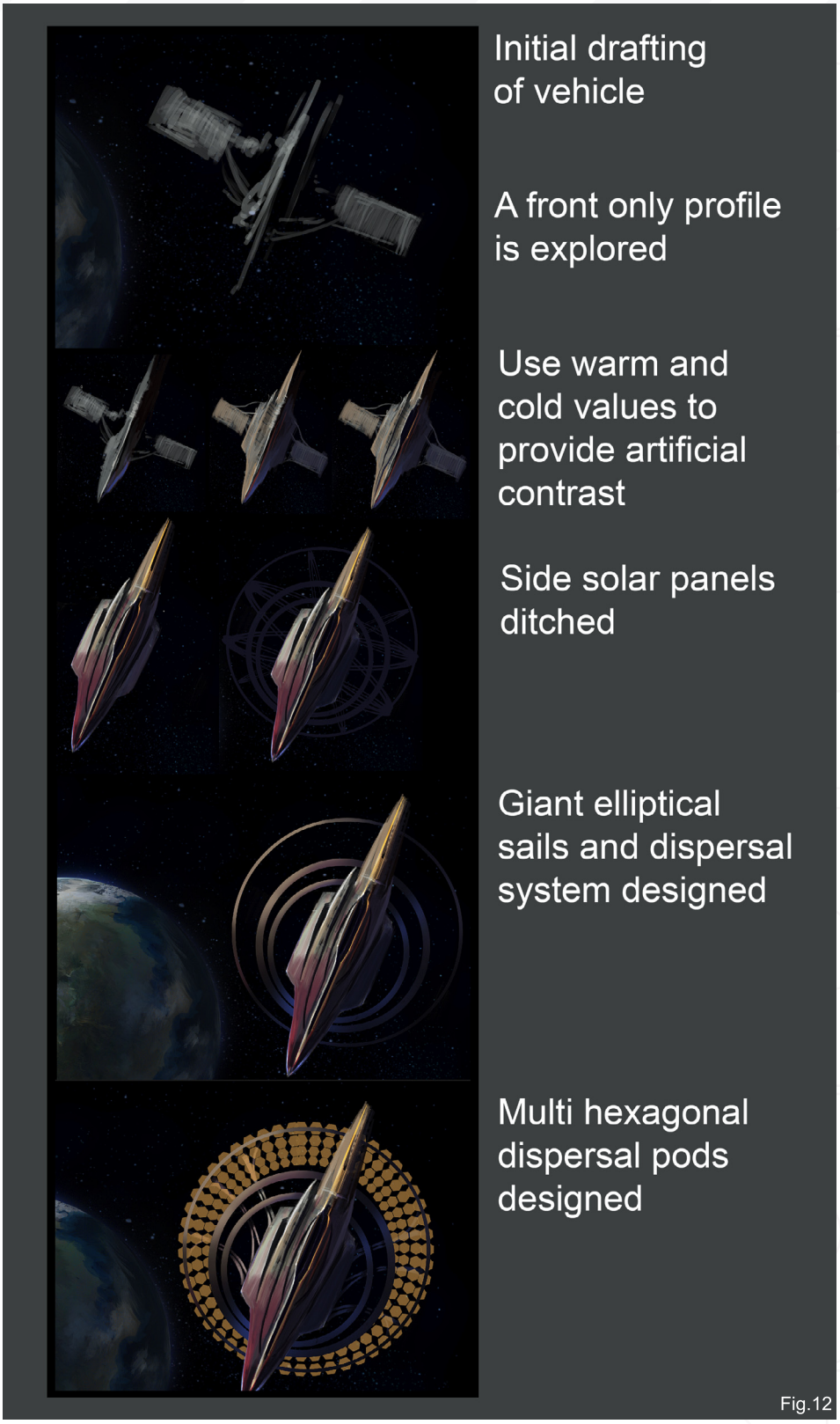


Fig.12

1. Initial Draft: The initial draft is loose and produced in greyscale.

2. Colour Scheme: Mindful of the surrounding environmental values, we opt for a yellow/blue colour scheme.

3. View: In this instance, a front profile is used for dramatic effect.

4. Design Shape: Using the various inspirations of naturalistic features (as previously discussed), and the design language developed

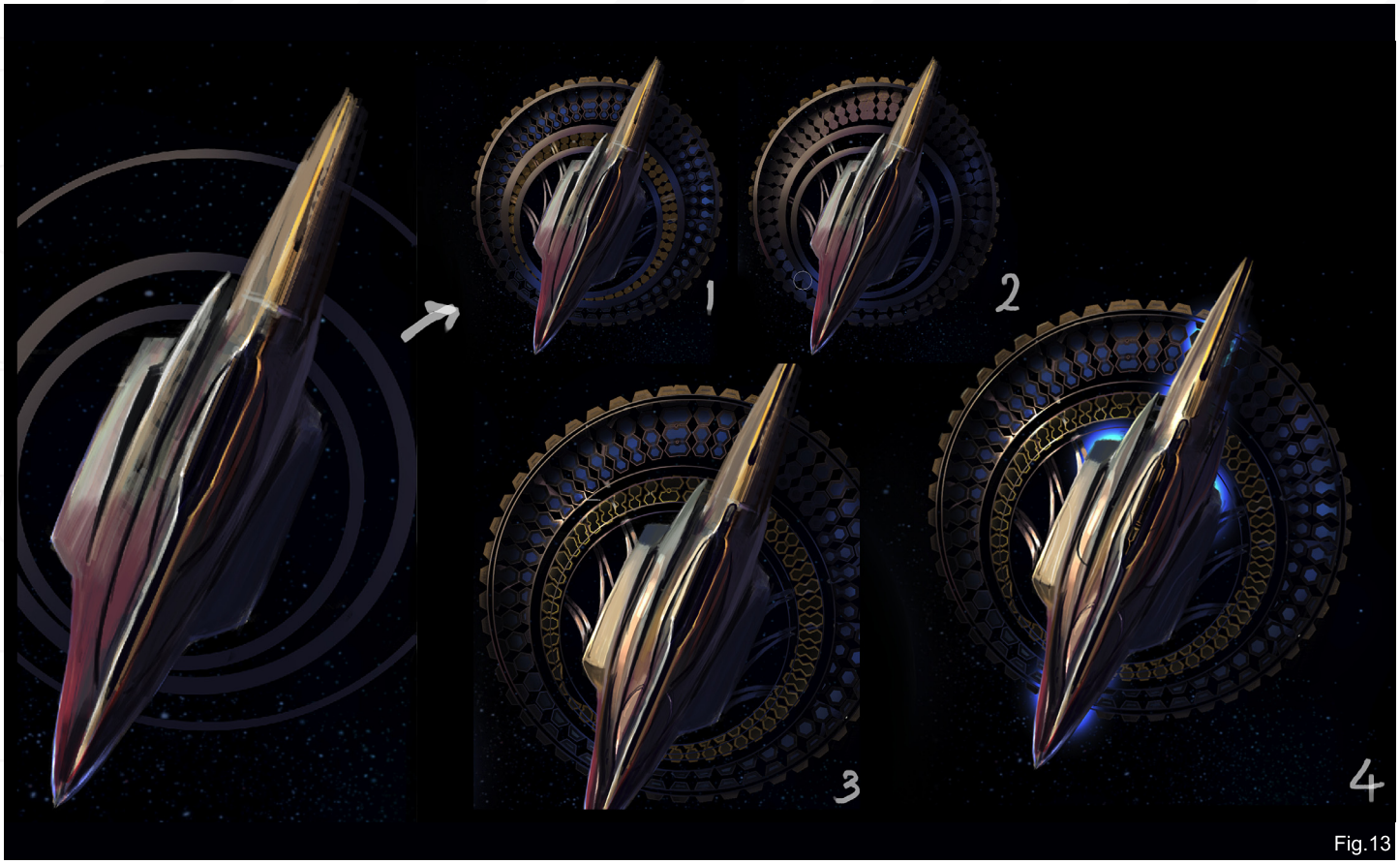


Fig.13

by Luigi Calloni, the idea is to develop a Gigantic propeller-shaped seed star ship (however, after a brief iteration, the side panels protruded horribly and were deleted).

5. Refined Design Shape: A warmer red-purple value is used to demonstrate the reflective ability of this giant ship, and values are ghosted in more solidly to give further definition. An idea to use elliptical giant constructs are implemented to provide space sails and space seed pods.

6. Seed Pods: The use of a hexagonal pod, arranged in a circular fashion, is experimented with. The idea is that as new seed batches are used, these can be replaced and released, like a revolving canister.

Following the initial conceptualisation, we now have both a back story and a purpose for this vehicle (**Fig.13**). We know that these large seed vessels can travel the various solar systems within different galaxies, and as they gather more raw material from flying space debris and asteroids, their ability to self-replicate via the von Neumann methodology allows for these large ships to send home identified planets ready for habitation.

The next stage is to take the star ship into a full render (**Fig.14**):

1. Selections: Provided you have various objects and shapes on different layers, you can select the various parts, e.g. the seed pod area, using the circular area via your saved selections. Selections can be made by selecting a specific shape you desire and clicking on a new alpha mask. These selections get saved into the alpha channels and can be accessed easily thereafter. Good selection habits are vital for successful transport design!

2. Depth and Colour: Using a tonal contrast of warm and cool values, remember to apply a shadow layer onto the circular selections to project a feeling of 3-dimensionality. To provide that extra dimension of believability, you can contract your selection by 1-2 pixels, add separate colour uniformity, and contract the selection even further to apply your final, overall colour.

3. Border: Using this method, you can emulate a distinct border between different parts, as seen in industrial design products, e.g. cars, fridges, drawers, phones, etc.

Final steps: To finish off, the addition of highlights and subtle engine glows/wash are vital. The important caution here is to add a fine wedge of light as your highlight. Large highlights suggest the viewer is very close to an object, and that the object is either greatly curved or very small in relative scale. For larger scaled objects, sharp highlights are smaller and fainter.

And there you have it – a good selection of mankind's current pursuit into reaching the stars, and real problems and solutions towards reaching the moon, Mars and then the stars. To infinity and beyond!

ADDENDUM

PERMANENT SETTLEMENT ON MARS

For further information and involvement about Mars, you can seek out the following:

1. Mars Society (http://www.marssociety.org) – founded by Robert Zubrin, including members such as sci-fi writer Kim Stanley Robinson and filmmaker James Cameron as an international space advocacy non-profit organisation dedicated towards encouraging the exploration and settlement of Mars.

2. Mars Drive (http://www.marsdrive.com) – founded in 2005, is a similar international non-profit space organisation with the goal of involving the public, directly and actively, in the settlement and exploration of space. Its intent is to enable the rapid expansion of humanity into space and Mars by gathering public support and helping build up funds for the growth of a viable space economy.



DR CHEE MING WONG

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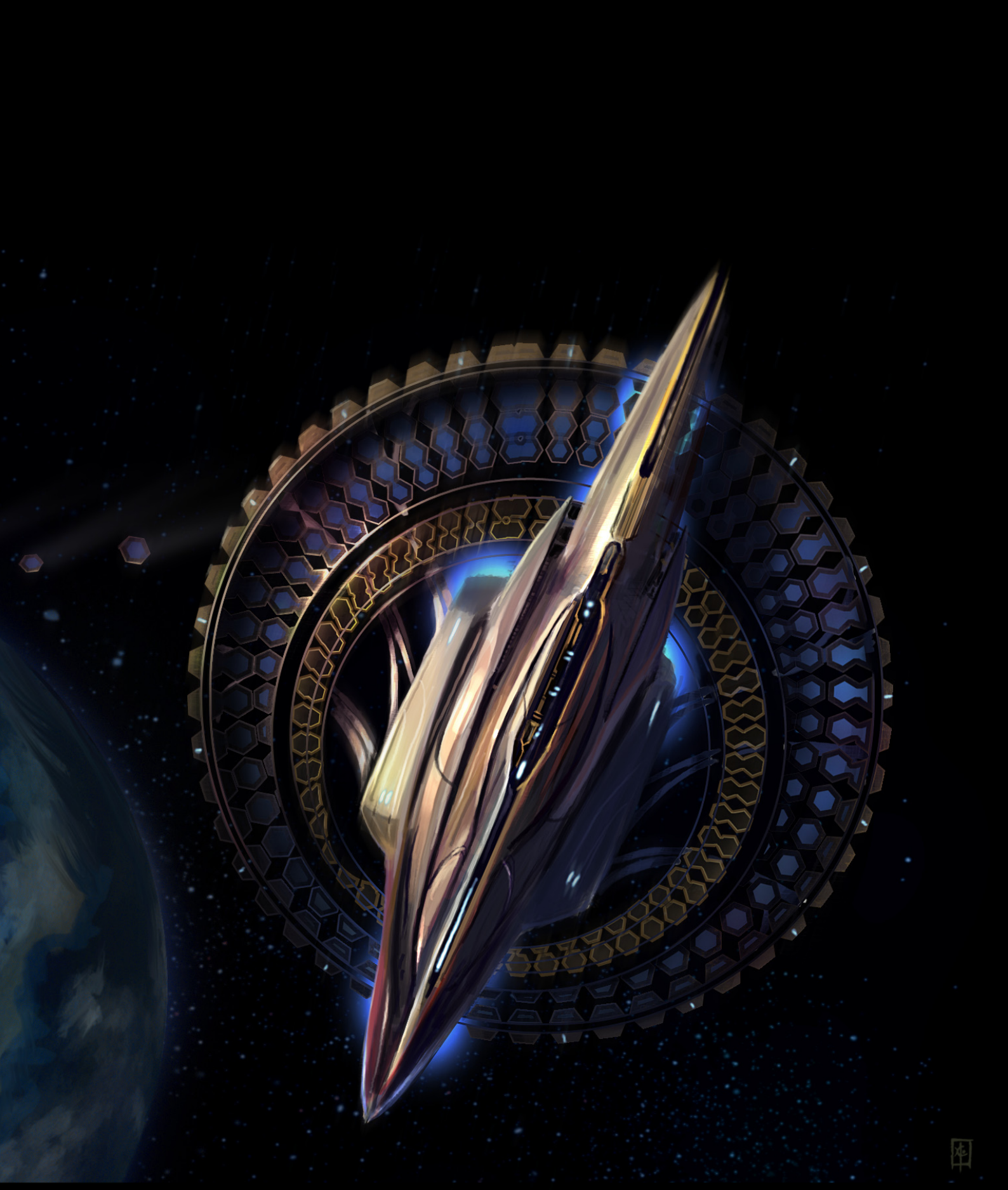
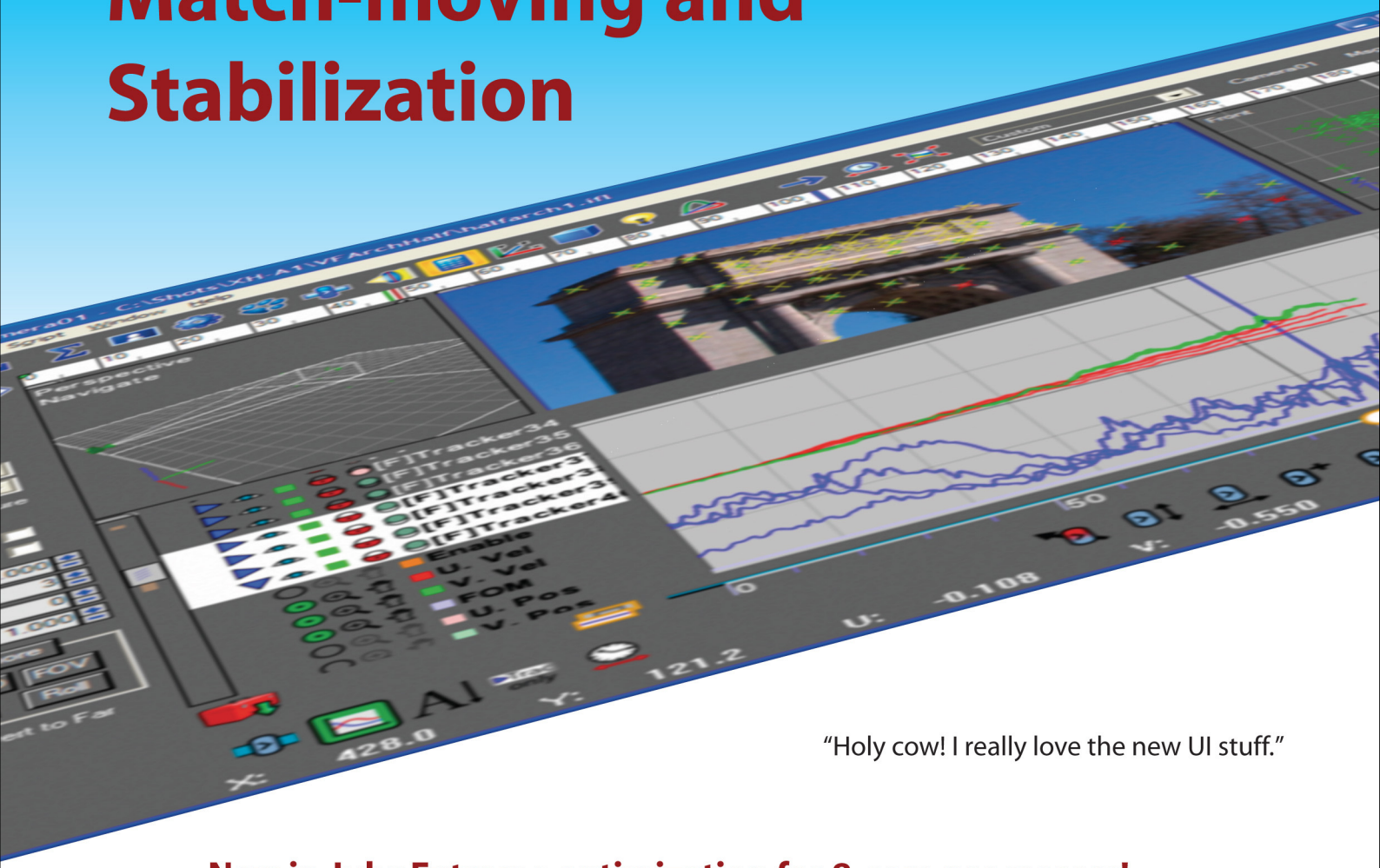


Fig.14

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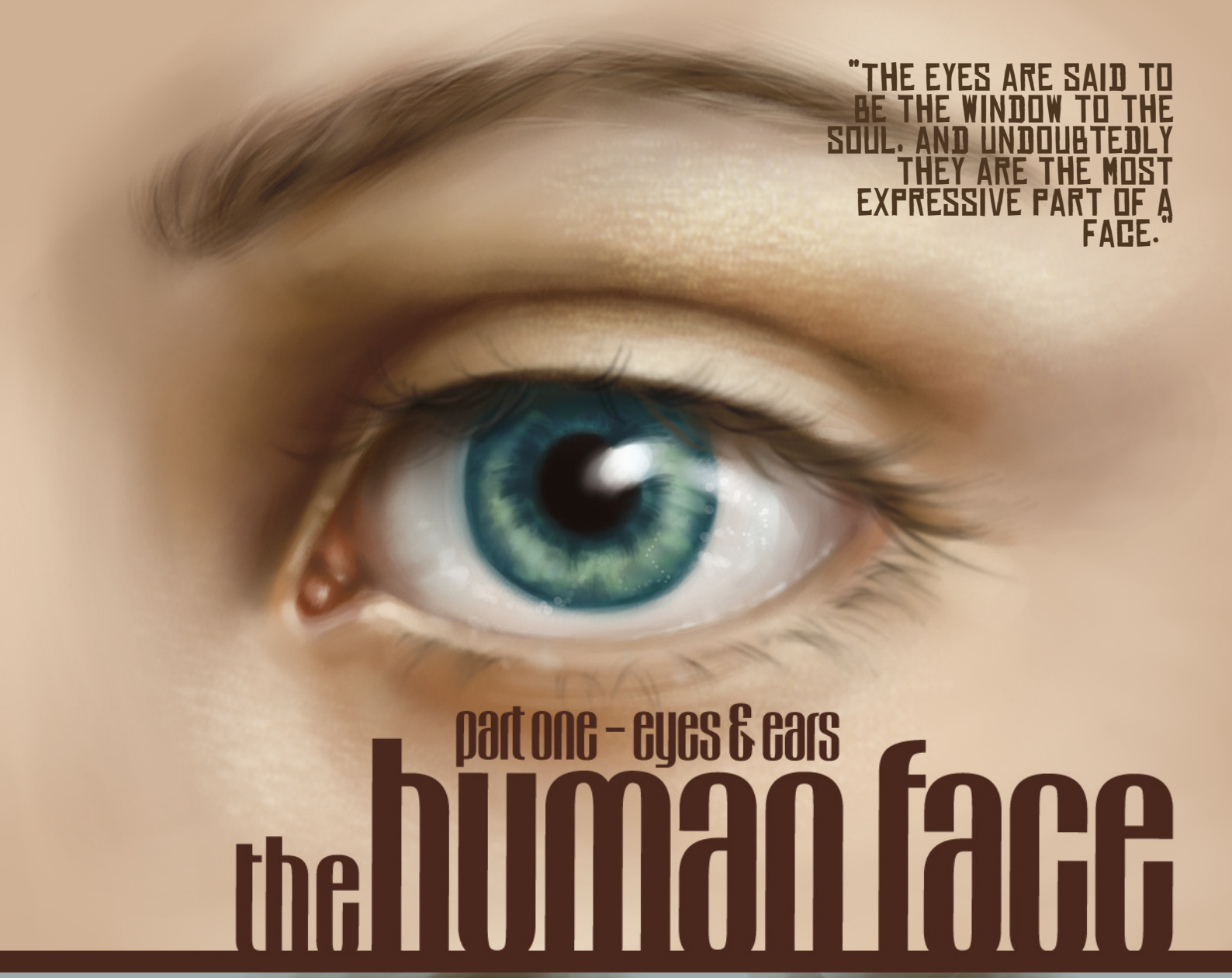
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"THE EYES ARE SAID TO BE THE WINDOW TO THE SOUL, AND UNDOUBTEDLY THEY ARE THE MOST EXPRESSIVE PART OF A FACE."

part one – eyes & ears

the human face

Even wondered how to achieve that extra level of realism in your character's face? Or simply wanted to brush up on your knowledge of facial anatomy? Then this excellent, three-part tutorial from Nykolai Alexander could be just what you were looking for! Over the next few months, Nykolai will take us through several step-by-step guides to creating various realistic facial features - starting this month with the eyes and ears.

Interested? Read on to find out more!

the human face
part one - eyes & ears

CREATED IN:

Adobe Photoshop

Let's face it, it's not easy to draw or paint a human face, especially not without some practice! It's not like painting a landscape where it doesn't really matter if a tree is moved two inches to either side, or changed in any shape or form. When painting a realistic face, everything has to be in the right place or else it will look quite grotesque and wrong. And not just that, but each facial feature has its own unique anatomy that one needs to stick to – at least as a base to build upon!

In this three-part workshop series, I'll be showing you how to paint separate facial features, two at a time, over this and the next instalment, and in the final workshop everything will be put together into a portrait with some more tips and tricks on how to achieve skin texture and paint hair. I'm hoping that this will not only be useful for beginners, but also for those of you who are already pretty good at painting but would still like to learn a bit more and push your skills to the next level - or perhaps just do something different.

EYES - INTRODUCTION

The eyes are said to be the window to the soul, and undoubtedly they are the most expressive part of a face. I've heard it said that if you get the eyes right then you're halfway to a good portrait, and it's certainly true to some extent. Eyes are also the part of the face that most often make a portrait look strange or lifeless, and this usually happens when their anatomy is not fully taken into account.

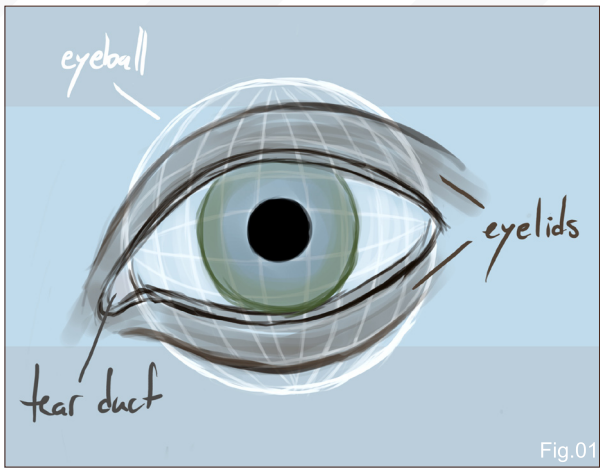


Fig.01


Fig.02

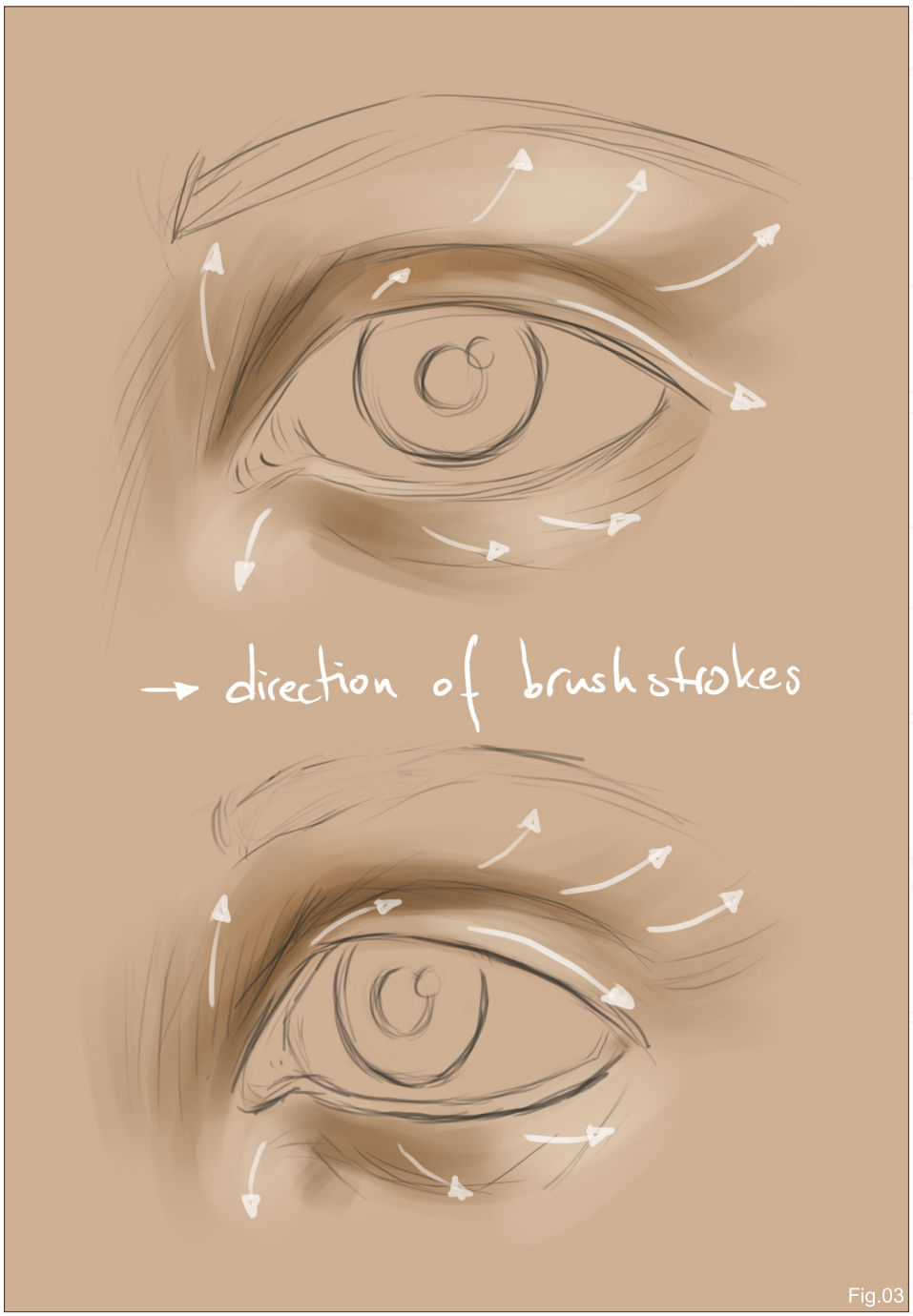


Fig.03

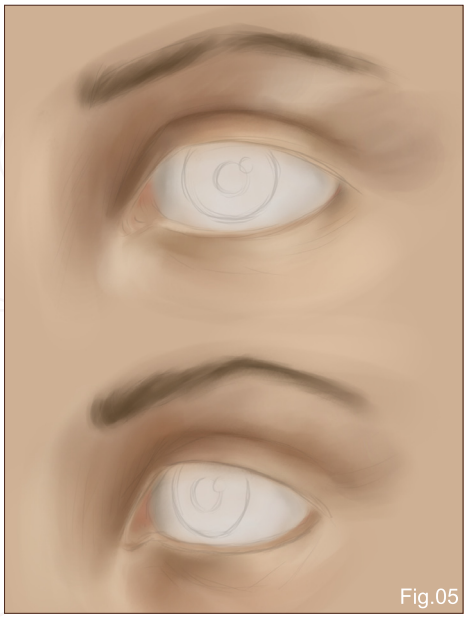
So, to get you started on a realistic eye, let's have a look at a line drawing of what an eye actually looks like (**Fig.01**). Of course, eyes come in different shapes and sizes, but the general shape will always be the same. The eyeball is called an eyeball for a reason, because it's a sphere, and the curve of it is visible even when we don't see the entire eyeball. In a side view of an eye it's even more apparent. Then there is the tear duct in the inner corner of the eye, and of course the eyelids – top and bottom. Omitting any of these things will make the eye look flat and quite simply wrong!

To make things more comprehensive, I'll be showing you how to paint an eye from two different perspectives – front and three-quarter view, as these are the most common ones for portraits.

LET'S PAINT!

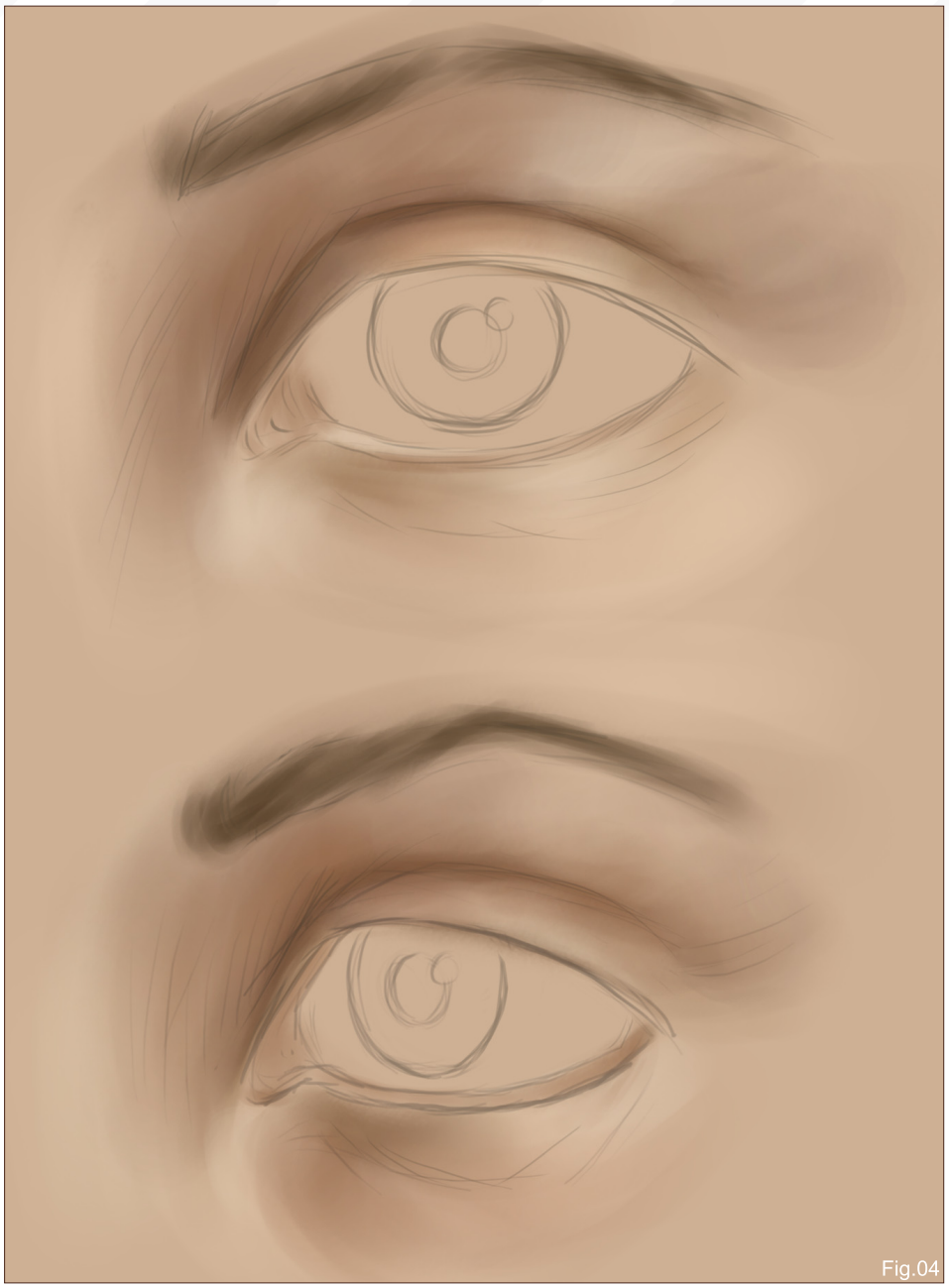
To begin, open a new file and choose a skin-colour for your background – something in the midrange, not too light or dark. We add a new layer and sketch the eye, remembering all those things mentioned earlier. Our light source will be on the right, so we can already add a reflection into the sketch (**Fig.02**).

First, let's give some shape to the surrounding area of the eye. I suggest you paint beneath the sketch layer, either directly on the background, or (more conveniently if painting an actual portrait) add another layer beneath the sketch layer. Choose a default round Paintbrush with the Opacity Settings set to Pen Pressure, and pick an orange-brown tone for the shadows and a yellow beige for the highlights to start with the shading. Keep it light: let the background colour work for you! We also want our brushstrokes to follow the natural curves of the eye socket and lids (**Fig.03**).


Fig.05

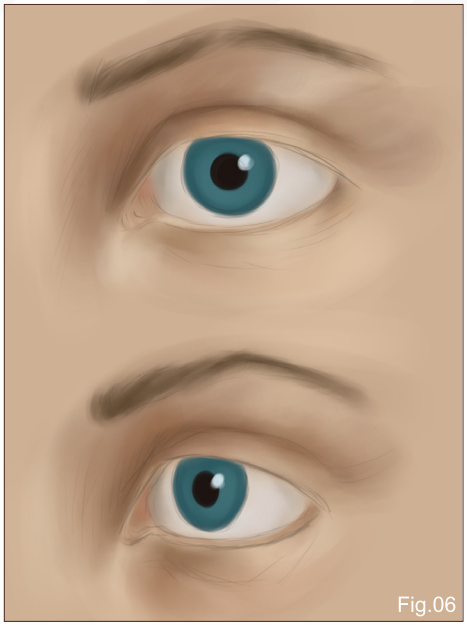
Continuing with the round brush, we refine and blend the shadows and highlights and we add some grey-purple and orange to the top lid for some variation, even though it may not be instantly noticeable. We can also hint at the eyebrows (**Fig04**). To smooth the brushstrokes out a bit, I tend to use the Smudge tool set to Finger Painting, with a speckled brush tip set to Scatter and the Opacity set to Pen Pressure. Experiment with this; these are the settings that work best for me, but it may be different for you!

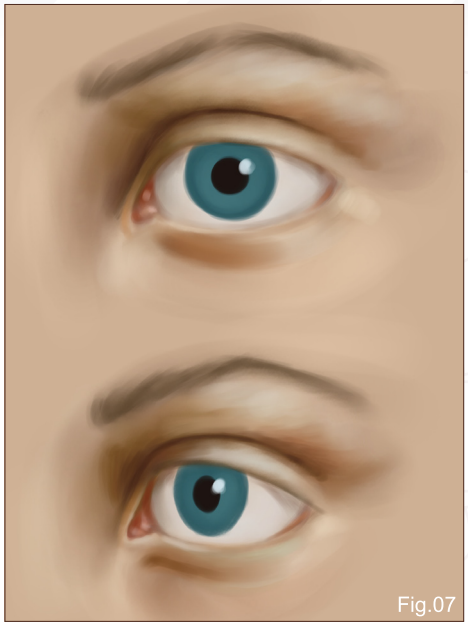
To get a more solid idea of what the eye will look like, let's paint the white of the eye. A common mistake to make is painting the white in pure white. Remember that we have to take


Fig.04

the curve of the eyeball into consideration, as well as the reflections of the light source. Using a greyish colour works best, its lightness depending on the overall light of the painting. Mixing in a little of the surrounding skin tone (or colour of lighting if appropriate) helps in making it look real. And for the tear duct, we can use a beige pink base (**Fig.05**).

Now let's add colour to the iris. I choose a medium-to-dark colour for this as a base, and then add a slightly lighter shade on top. This already gives the impression of a little depth. Now add the pupil. Note how in the three-quarter view it doesn't appear rounded, but slightly oval; this is due to the perspective


Fig.06


Fig.07

(**Fig.06**). Don't forget the little bright dot of reflected light as this will help you in the next few stages of building up the detail of the iris!

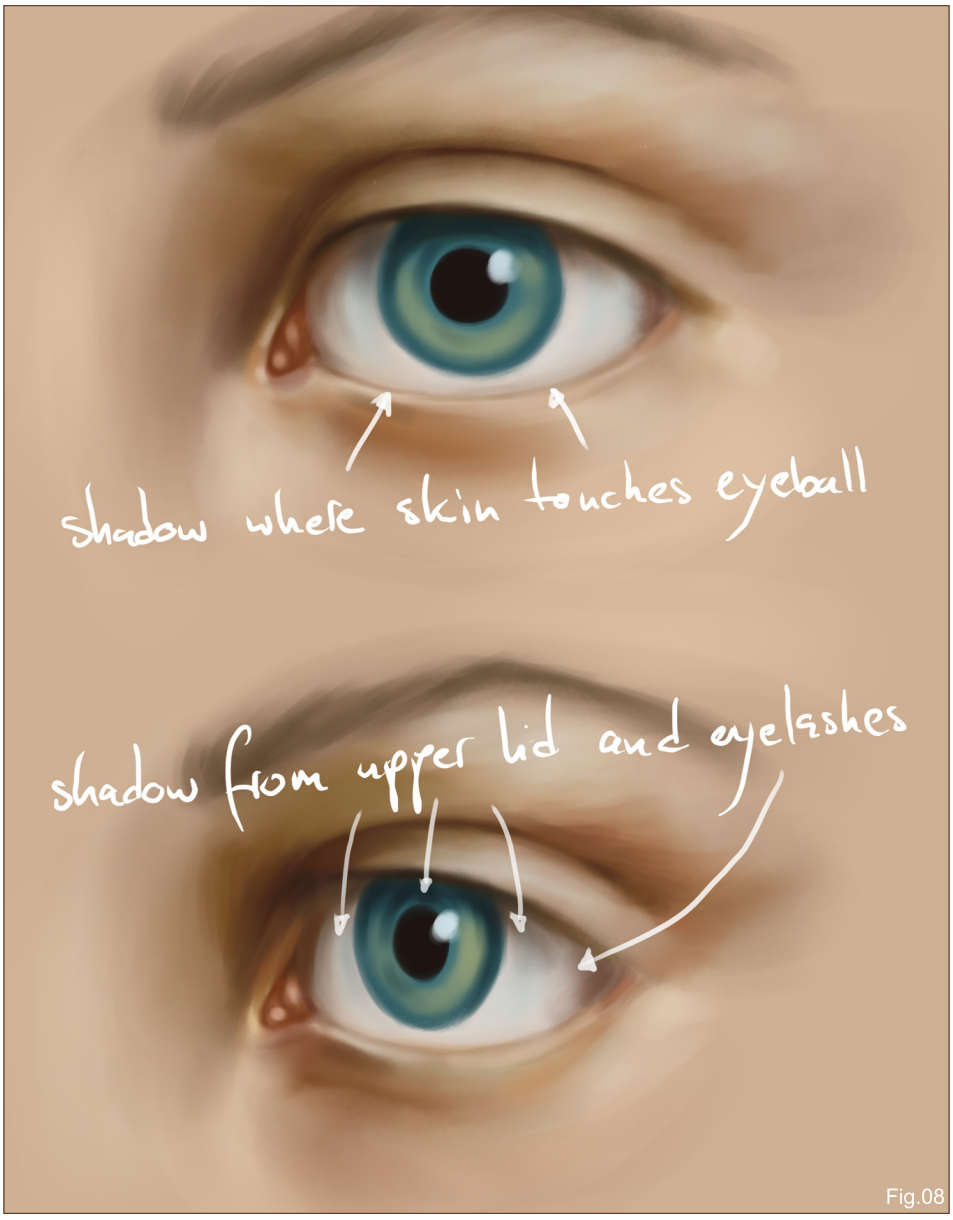


Fig.08

We already have a recognisable eye now, even though it's still quite rough and a lot of details are still missing. For now though, we want to refine the general shape of the eye and lend it some depth. Sticking with the round Paintbrush, I choose a rather saturated orange-brown for the deep shadows between the upper eyelid and brow. I also use this to add a light shadow to the upper lid's ridge, and on the inside of the bottom lid. The tear duct receives some nicely saturated orange, which is repeated ever so lightly in the outer corner of the eye. To enhance the highlights a bit, both very light beige and grey-green for parts of the lids work well. The shadows on the eyeball itself are worked over again, too (**Fig.07**).

From here on, it really is all about refining everything and adding details, still working with the round Paintbrush at varying (manual) Opacity Settings and sizes. I always feel as though it's a bit like sculpting the features, rather than painting them; pulling them out of the canvas by adding deeper shadows and brighter highlights as I go along. So that's exactly what we'll do: deepen and refine the shadows. Adding

a soft but substantial shadow to the upper lid's edge helps with getting an idea of what effect the eyelashes will have on the overall picture, and softens the edges of where the eyeball disappears under the lid (**Fig.08**). The iris' colour is accentuated with a pale green, and intensified with a very lush dark turquoise where the lid casts the shadow.

Sticking with the iris, pick a small brush – either the round Paintbrush or a speckled custom brush – and we can begin to paint the line pattern. Every eye has this pattern, but sometimes the colour can be so dark that it's not truly visible. However, the lines that go from the pupil to the outer edge of the iris are always there. In this case, we want them nice and visible with some vivid colour variations. We'll stick with the pale green and turquoise but choose lighter or darker shades of the same or a similar hue (**Fig.09**). Sit back sometimes and just look at what you've been painting as you may very well notice some parts that you want to touch up. Here, more highlights are added to the outer edge of the brow, the edge of the bottom eyelid and skin around the tear duct, and I can then start to hint at hairs of the eyebrows, too.

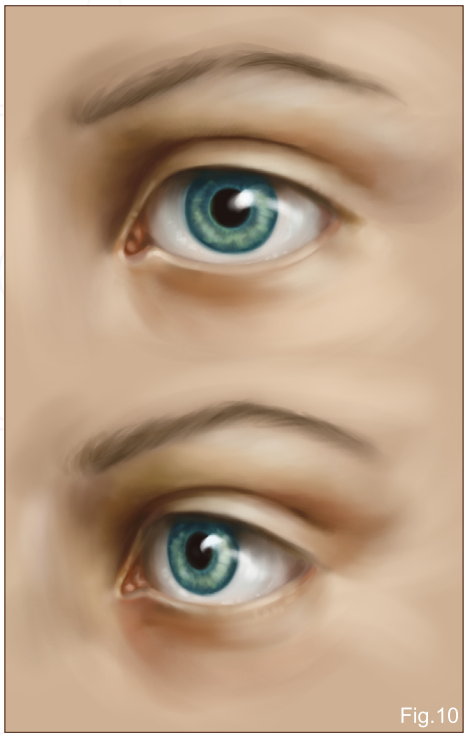


Fig.10

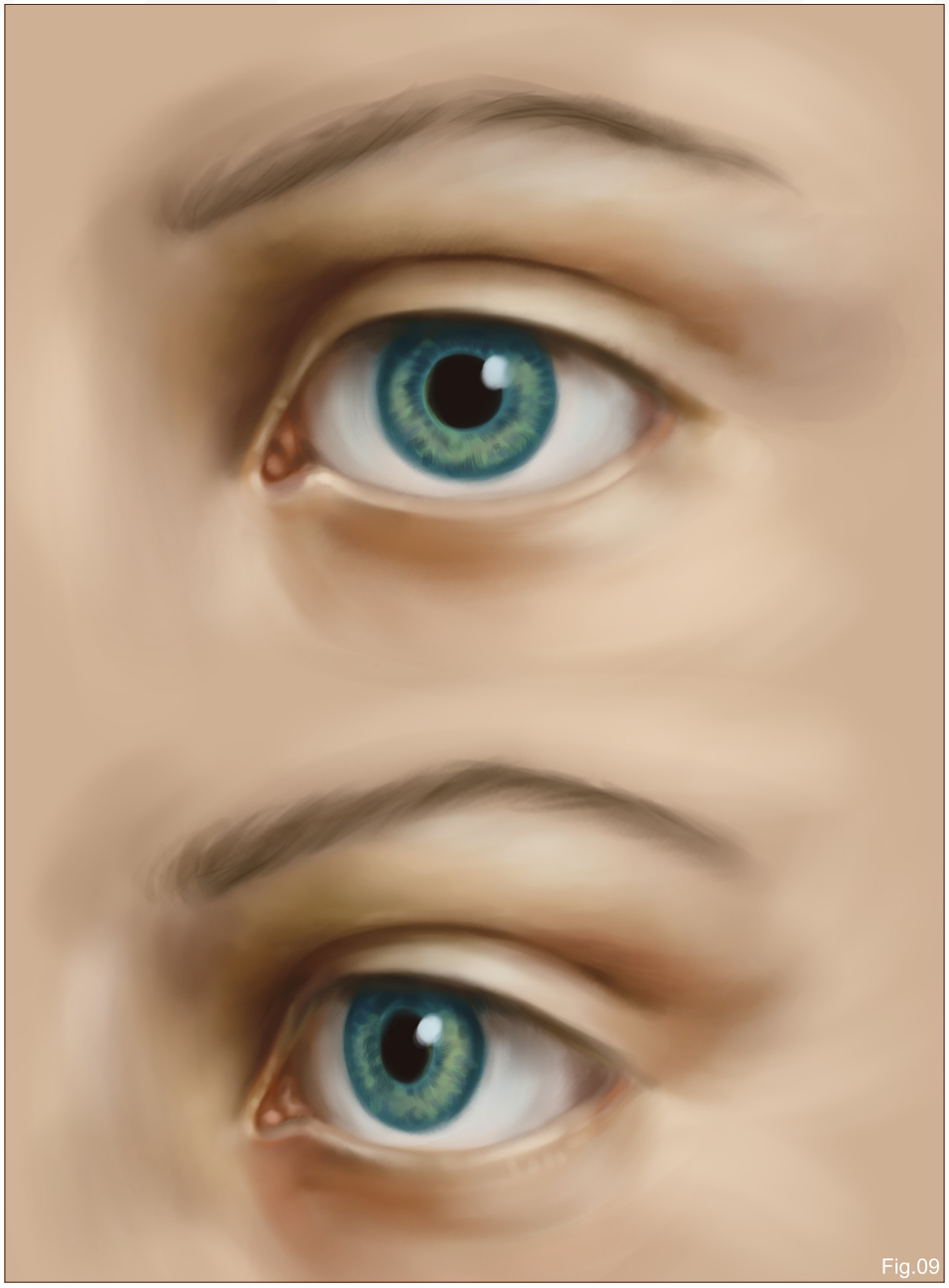


Fig.09

Selecting the Smudge tool (set to Finger Painting, as before) with a speckled brush tip, we carefully render the iris. Make sure you keep your smudge strokes going from pupil to iris edge: we don't want all the lines to disappear! Once that's done, we pick a very bright – but almost de-saturated – pale green and go over the iris where the light hits it: on the right, and a small area at the bottom left, where there would be a feint secondary reflection. To enhance the curve of the eyeball, we now pick an almost white-blue and work on the actual reflection in the eye. Notice how I paint it in an arch, going up and then back down again, extending across the side of the iris onto the eyeball. This aids in giving the illusion of a curved glossy surface (**Fig.10**).

Using a small round Paintbrush with Opacity and Size Jitter set to Pen Pressure, we can now paint in the eyebrow. Pick a nice deep brown, as well as a medium brown for this. Smudge the hairs ever so lightly. Pick colour from the surrounding skin and use it to break up the brow a little. Accentuate the skin around it with some more highlights, especially on the outside where the light would hit the strongest. Once that is done it's time to think about the eyelashes. We'll

add a new layer for them as it's easier to paint them that way without fear of ruining your eye. Choose a small round brush with Opacity and Size set to Pen Pressure, and start painting in the lashes with flicking motions. Unless caked in mascara and tortured with a lash curler, eyelashes do not usually curl upwards all that much (Fig.11)!

You can either keep painting on that one layer or add new layers for more layers of eyelashes, building up the density. You can also duplicate the layer your lashes are on and move it a little to either the left or right, and then reduce its Opacity and erase some parts of the lashes and smudge others. Once happy with the eyelashes, we gently smudge the ends here and there (Fig.12). Adding a few dots of highlight in-between the lashes on the lower lid gives a nice impression of glossiness.

The last step of every painting always consists of adding all those tiny details that make it "pop"; that make it look realistic even when it retains a painterly quality. Using separate layers for these details is often a good idea as you can adjust and experiment with them to your liking, without ruining your painting. Before we do this though, we want to finalise the iris a bit more. Picking

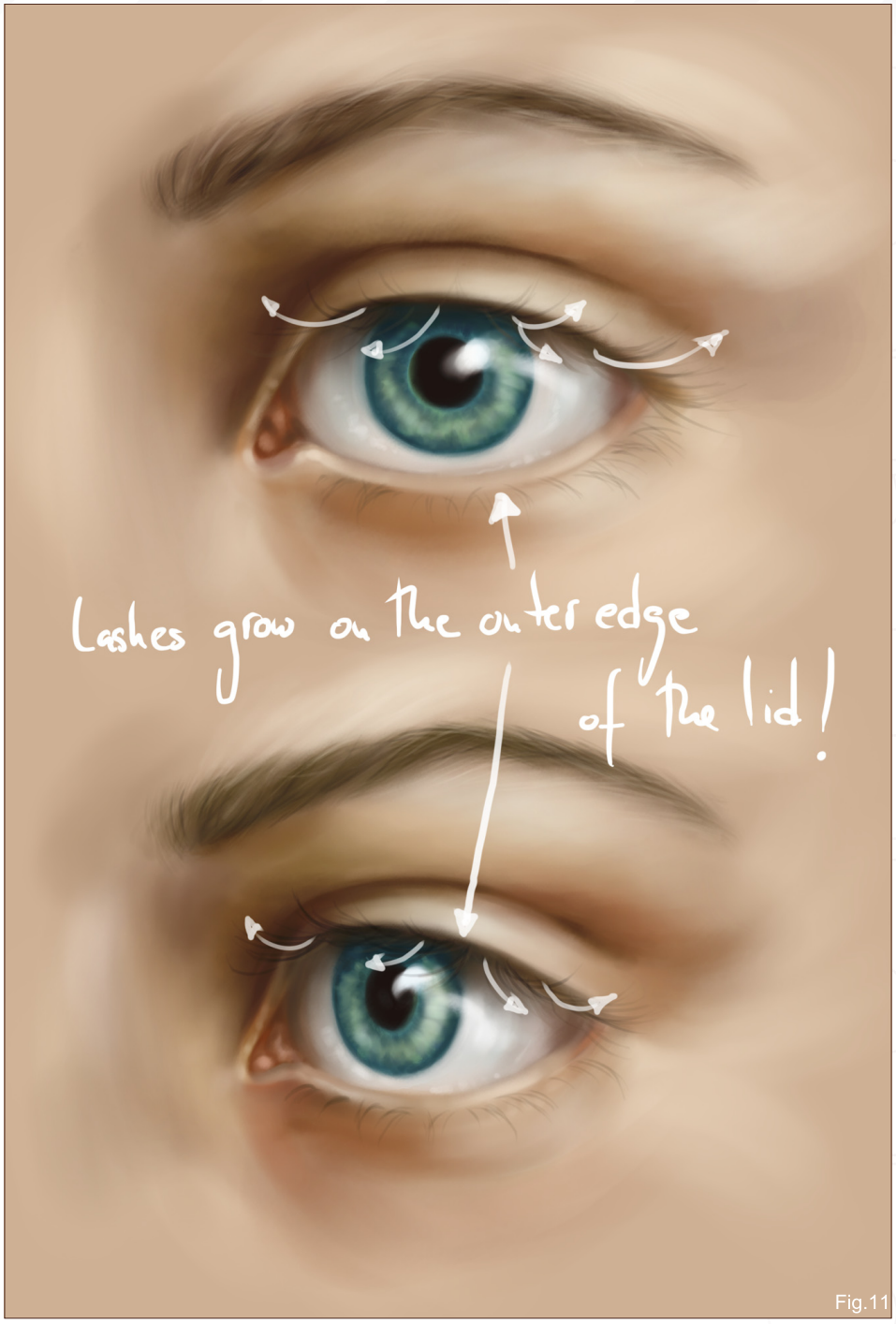
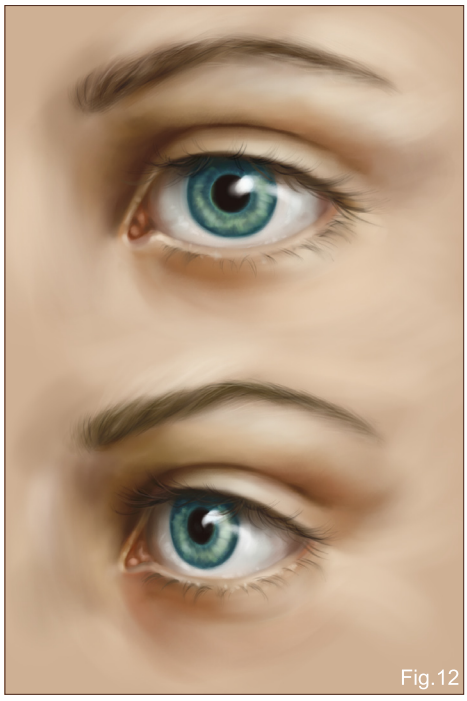


Fig.11


Fig.12

the darkest turquoise we draw a ring of lines extending from the pupil – some stronger and longer, some weaker and shorter. This instantly intensifies the green and the apparent glow of the eye. Now that is done, we add some more highlights to the eyeball with a custom speckled brush, and then smudge them lightly. Choosing a much finer speckled brush we set its Angle Jitter to 50% and carefully use it on the brow, both eyelids and in the corner of the eye with a very bright white-yellow. Do all this on a new layer! Smudge it slightly, but only so much as to take the edge off the obvious dots. You may also want to erase some parts of it to let it blend in better with the surrounding skin tone. Now duplicate that layer and set it to Overlay, and then nudge it a few pixels to either side to create a fine skin texture (Fig.13). All that is left now is to look your painting over, see if you want to add a few more lines on the lower lid or in the corner of the eye, or adjust any highlights or shadows – and that's it!



Fig.13

EARS - INTRODUCTION

Ears are funny things, or at least I think so when I look at them for a while! They appear intricate too, which is something often overlooked unless properly looked at. And it is their deceivingly simple shape that causes the most problems.

Again, let's check out what an ear actually looks like (**Fig.14**). Indeed, a simple shape! When painted though, people sometimes like to forget about everything besides the earlobe and the helix, and maybe even the tragus, which makes the resulting ear look kind of bizarre. Others just paint some random squiggles into the ear to resemble the antihelix, and that doesn't really work either. Without the little "bump" that is the antitragus, it looks slightly odd too!

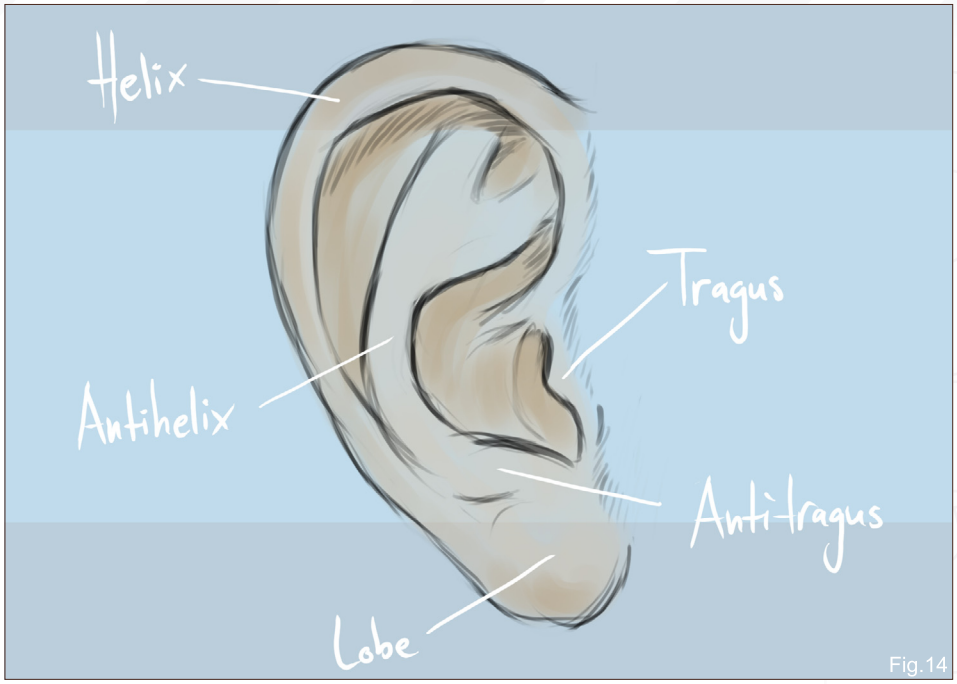
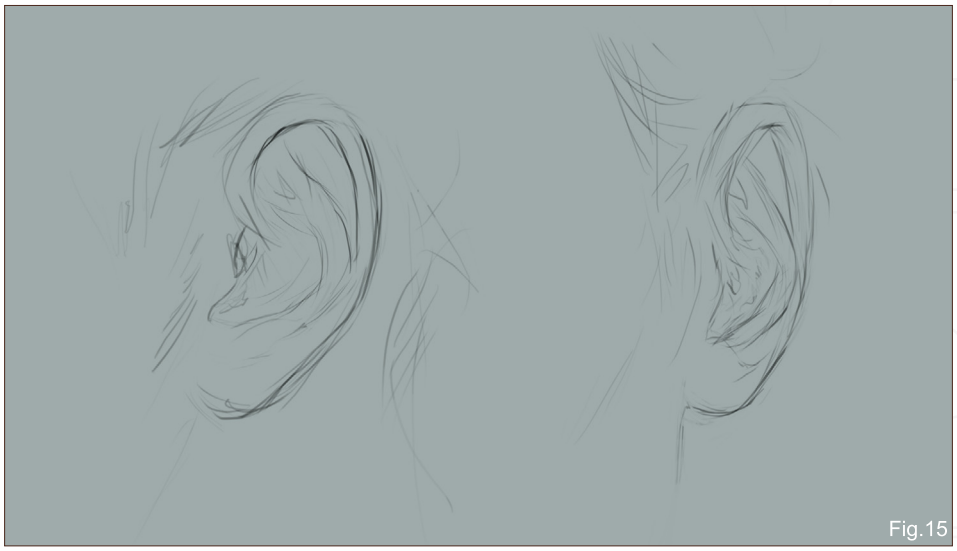


Fig.14

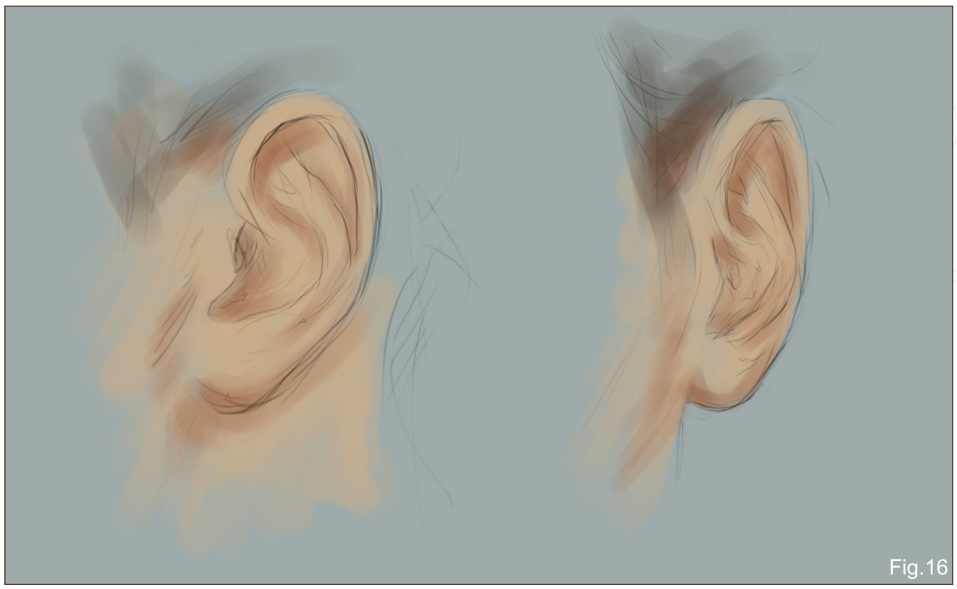
As before, I'll be showing how to paint an ear from both frontal and three-quarter view, and you'll be surprised that it really won't take long at all.

LET'S PAINT!

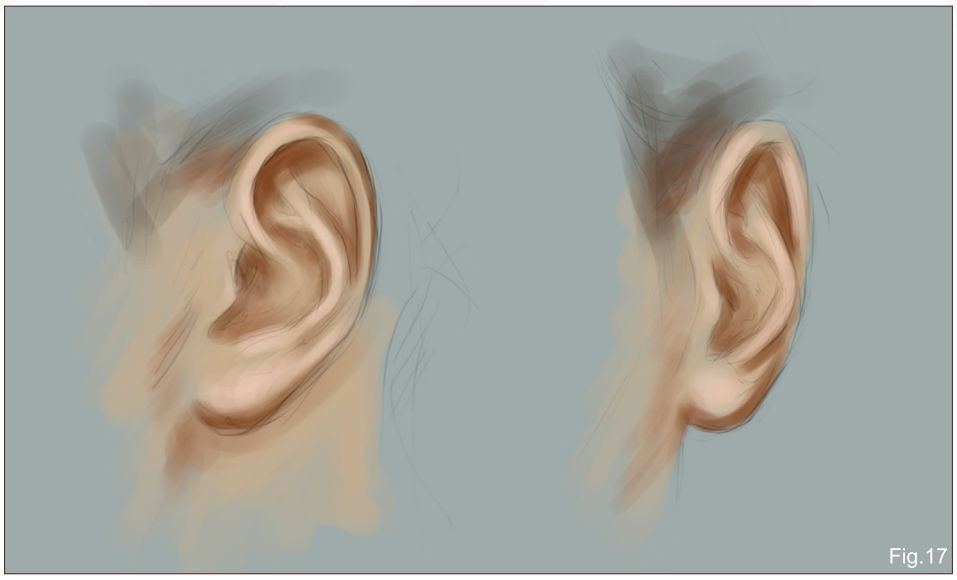
Open a new file and add a new layer for the sketch. I choose a medium grey-blue for the background colour, rather than a skin tone, as it will make painting the front-view ear easier (in reality it wouldn't be surrounded by skin, either). Pick a small round brush, with the Opacity and Size Jitter set to Pen Pressure, and draw your line work. If you need references, don't hesitate to use them to get it right (**Fig.15**).


Fig.15

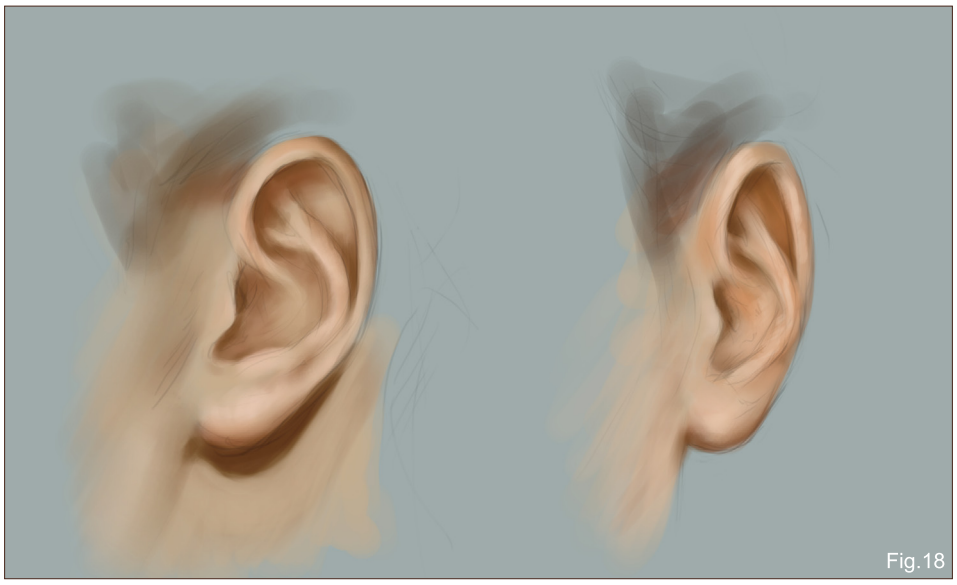
Let's block in some colours, sticking with the round Paintbrush. I tend to switch off the Size Jitter for this to get good coverage, whilst still keeping the benefits of the Pen Pressure Opacity. Pick a medium flesh tone and use this as your base colour for the ears. Once you've filled them in (remembering to paint beneath the sketch!), pick a red-brown colour – not too saturated – and block-in the shadow areas, bearing your light source in mind (**Fig.16**). I've also hinted at the hair line a little.


Fig.16

When painting fair-coloured skin, the ears tend to be slightly redder or pinker than the rest of the face due to the amount of blood vessels running through them. If light shines through them from behind, it becomes even more apparent. Bearing this in mind, I now choose a warm orange to refine the shadow areas, and a light pink to bring out the highlights (**Fig.17**).


Fig.17

Even at this stage, it's already pretty discernible as a realistic human ear. From this point on, it really is all about placing shadows and highlights in the right places, careful blending, and paying attention to the shape of the ear and the shapes that make up the ear. To blend the colours we've already laid down, we'll use the Smudge tool, as before, with a speckled brush tip set to Scatter and with the Opacity set to Pen Pressure. Refine the shadows and highlights a little and blend as needed (**Fig.18**).


Fig.18

Now is the time to clean up the edges of the front view ear a bit and also to fix a few things that in this case have nothing to do with the ear, namely the neck and hair line. We'll also work on blending the colours a bit more and smoothing out any rough brush strokes that may have been left over. Try blending with the contours of the ear's shape, rather than by random smudge strokes (**Fig.19**).

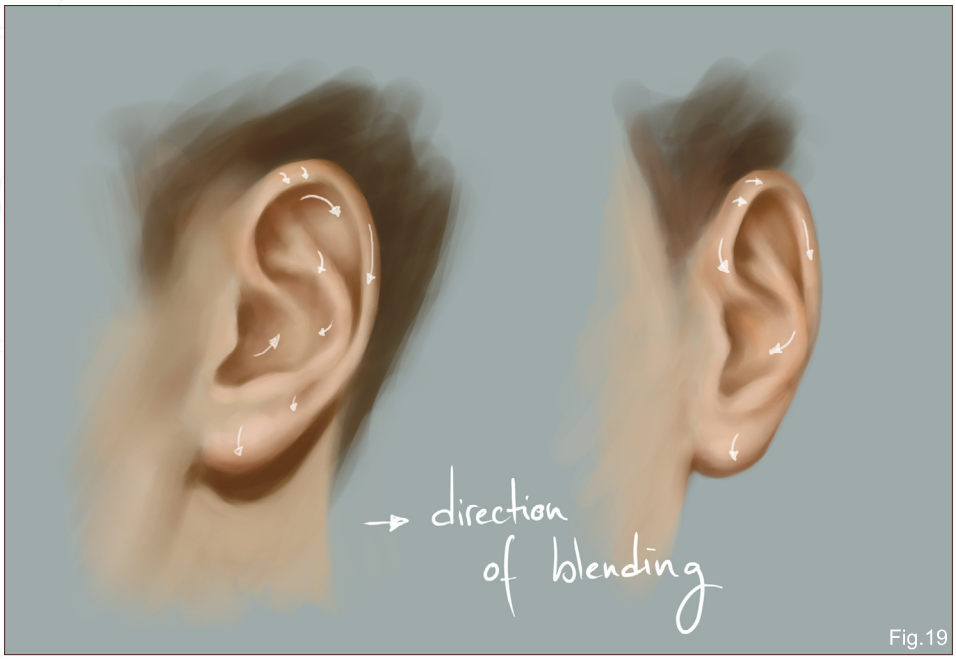
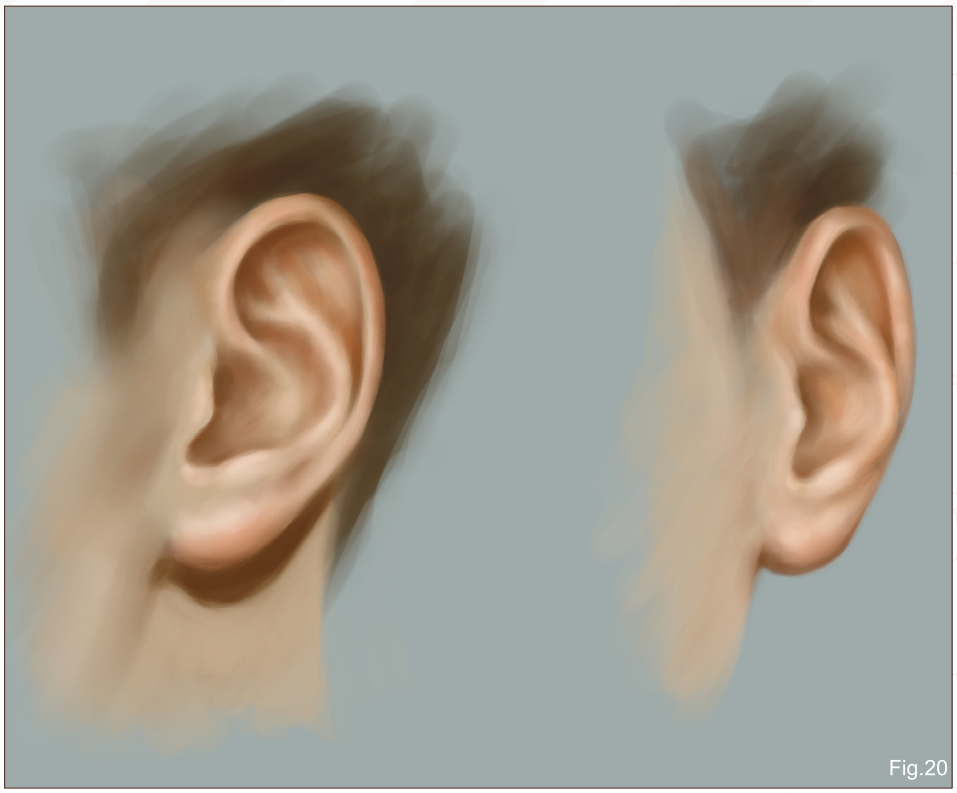


Fig.19

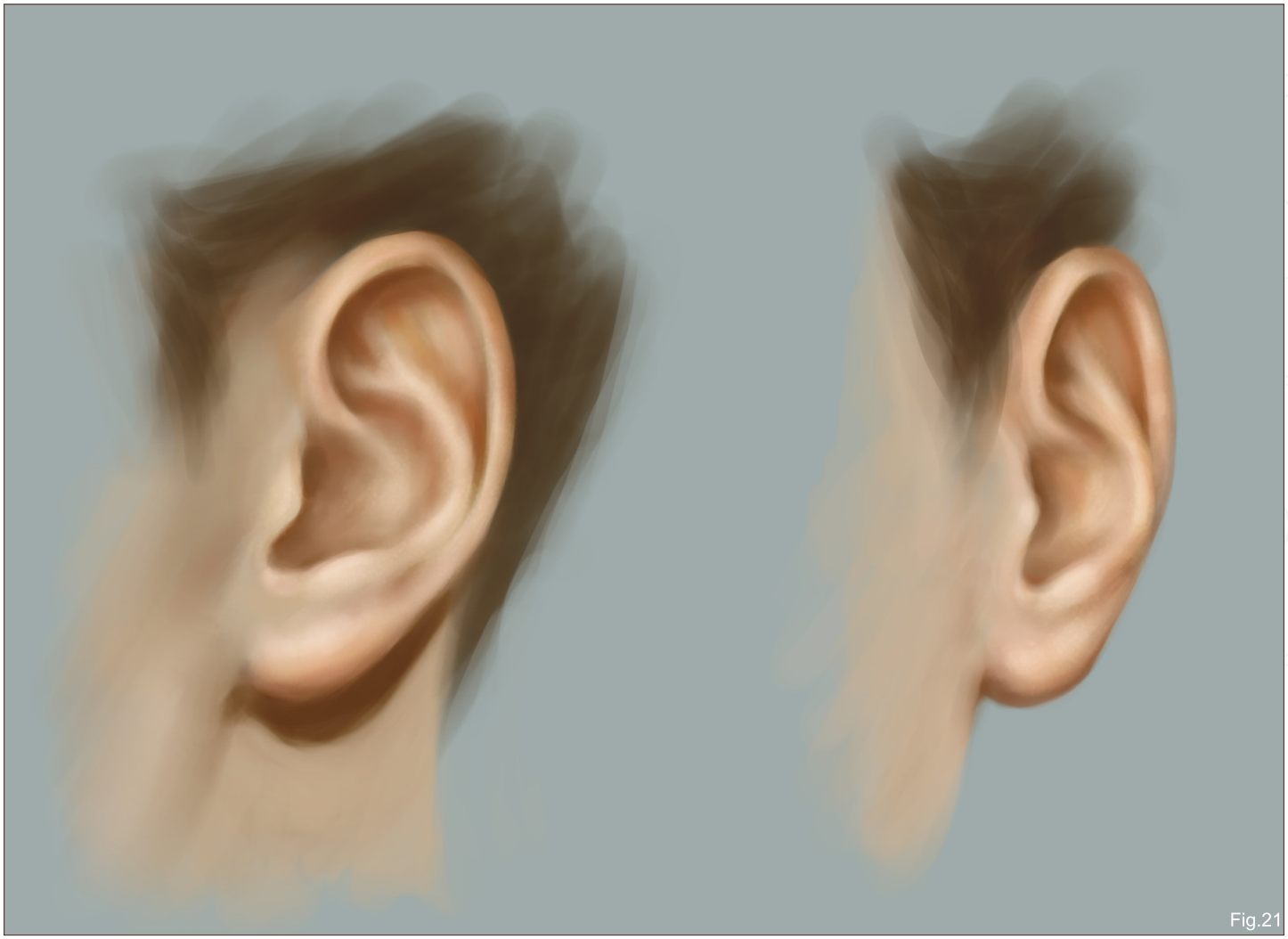
It already looks pretty good now, and there really isn't that much left to do, unless of course you want to paint every skin pore. As a matter of fact, ears tend to not get too much attention in most portraits, and even less so in full-body character paintings. Often they are just hinted at, as it is enough for our brain to recognise the correct shape of an ear to imagine the rest. In any case, we now should add some more pronounced highlights, as well as enhance the orange-peach tint of the skin, as it got a bit washed-out by all the blending. For the latter, add another layer and very lightly paint over the areas that need it. You can adjust the opacity of the layer, or erase wherever you do not want the peach colour to be too strong, before merging the layers (**Fig.20**).

Now to the highlights – quite literally! Let's add another new layer, pick a very bright yellow and a soft round brush, and lightly paint over the areas where the light would hit (and reflect) the strongest. This will be mainly the antihelix, but also the lobe and antitragus, and maybe add a few scattered highlights on the helix, too. Set the layer to Overlay and adjust its Opacity until you cannot really see the brushstrokes anymore – just a "glow". Merge the layers. You can add some skin texture if you like (as explained for the eye), but ears tend to not show it as much as the skin on a person's face, so it's not quite necessary (**Fig.21**). And you're done!


Fig.20

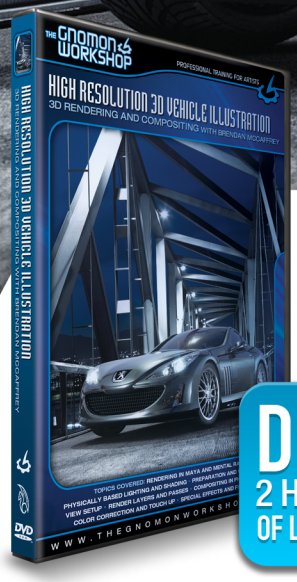
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Fig.21

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Nick Miles shares the process taken to create his digital painting “The Mantis Queen”, from the intial ideas stage all the way to the final image.

THE MANTIS QUEEN

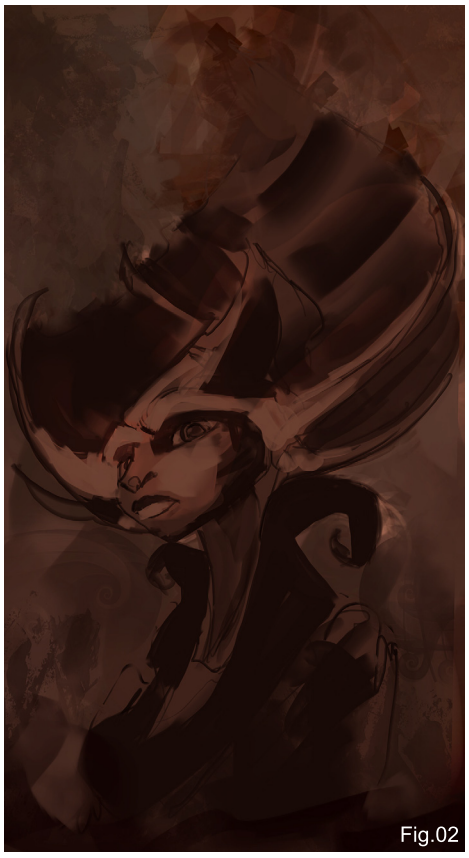
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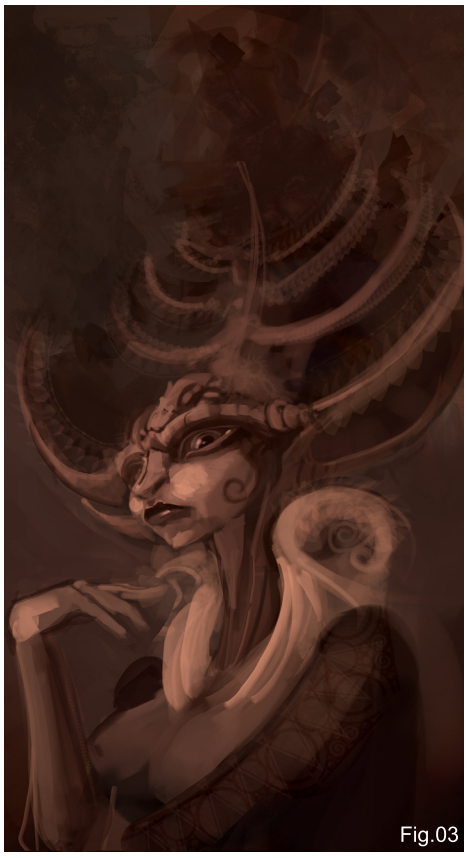
Photoshop CS3

The Mantis Queen came about through my desire to push the boundaries of abstract form within my work, whilst maintaining what I deemed to be a coherent, clearly identifiable character silhouette. For a while now I have been incorporating abstract patterns and shapes into my own work and I wanted to see how far I could push this.

I scoured the web and my personal archive for images to inspire me - something to act as a catalyst. Quickly, I settled on the praying mantis as the basis for my subject. The varied and exotic forms of this almost otherworldly insect made it ideal for the type of patterns and shapes I wished to use.


Fig.01


Fig.02


Fig.03

I used Photoshop CS3 from beginning to end, and I started with a series of basic thumbnails (**Fig.01**) to establish the kind of direction I wished to take the painting in. I used a limited palette, as at this stage, as I had yet to establish the colour scheme. Not worrying about the colour scheme allowed me to focus on the form of the character and overall composition. I knew that as the piece gained clarity in my mind a colour scheme would become clear. From the thumbnails I decided a blend of human and mantis characteristics was best. Giving the character human characteristics would help to ground her in our world, making her easier to relate to and make those non-human elements all the more disturbing; thus giving the piece more impact.

With the thumbnails complete and general direction established, I moved onto the first stage of painting. I covered my canvas with a

number of texture brushes, including a standard chalk brush to remove the dreaded white. There's nothing more intimidating than working on a blank canvas, and removing it also helps with initial colour choices as the bright white of a canvas can affect your perception of value, leading to a washed-out palette. Keeping with the large palette brush I sketched in the basic form on a new layer (**Fig.02**).

I quickly blocked in the darks to lights (**Fig.03**), giving the various features more volume. At this stage I was not focusing on blending strokes; I was just putting marks down, keeping the piece developing quickly. On a new layer I laid out a few shaped brushes that I felt were sympathetic to the forms I observed on my praying mantis ref. The inclusion of these shapes helped to start the painting down the road I intended, and it prevented me from inadvertently creating too literal a representation of the shapes I'd interpreted from my reference.

Through studying my praying mantis reference, I was struck by the delicate frills which adorn the body. Images of the fashions established during the era of Britain's Queen Elizabeth I were conjured up in my mind. I knew I wanted the character to appear quite regal and so I decided to tap into this idea.

By taking these design cues I wanted to blur the line between the Queen and her costume, so they became an extension of one another; creating a state where the viewer wouldn't be sure how much of the regalia was costume and how much was the character herself.

The painting shifted course slightly to accommodate the blending of these new concepts. The colour scheme also had to become much clearer in my mind. I chose to use reds and creams, which I felt were befitting on the royal status of this emerging Queen. I used a brush set to overlay to wash some more reds into the painting.



Fig.04

I quickly painted a Praying Mantis onto the Queen's hand (**Fig.04**). I felt this would add a little more story to the image and would also act as a marker for the source of inspiration for the character. The cannibalistic tendencies of the female praying mantis towards the male during mating are well documented. I ensured the mantis on her hand was male by adding eight thorax segments, as opposed to the six or seven seen in females. This is a small detail I discovered during the research phase. So the male tentatively sits on her hand – is he her pet or a light snack? It's up to the viewer!

I played about with using several different species of mantis for the Queen's companion to make sure that I had the most suitable (**Fig.05**). At the same time I continued to refine elements such as the hand using a round blending brush; the colour palette began to mature and I continued with the inclusion of my patterned brushes. I chose to keep the face simple so as to act as an oasis in all the detail and naturally draw the viewer's eye to this location.

I kept the pattern work on several normal layers so as not to damage any of the elements in the process of painting. Through the laying down of these shapes, I started to see larger shapes appear in the myriad of patterns. I always try to keep the number of layers to a minimum, flattening them down when I'm confident. Here I flattened several of the pattern layers against the base character layer.


Fig.05


Fig.06

I used a brush set to colour dodge to pick out the patterns I liked, and used the colour burn tools to push back those features which I didn't. The painting could have all too easily become very chaotic, so it was important to pick out the shapes which really worked and lose those that didn't. It's all about studying the shapes within the shapes and not allowing your preconceptions of what you think the image is going to be obscure the possibilities that the mark making process can create.

At this point I stepped away from the painting for a while. It was important to allow the painting to settle and to go back to it with fresh eyes. When I did this, the first thing that struck me was how the colours of the Queen were competing with the background. I'd focused so much on the character and shape picking that I had ignored the colour balance issues. Taking a break allowed me to identify this. I hue-shifted the background to lift the Queen up off the page. I chose a warm blue which I felt complimented the reds and creams of the Queen (**Fig.06**).

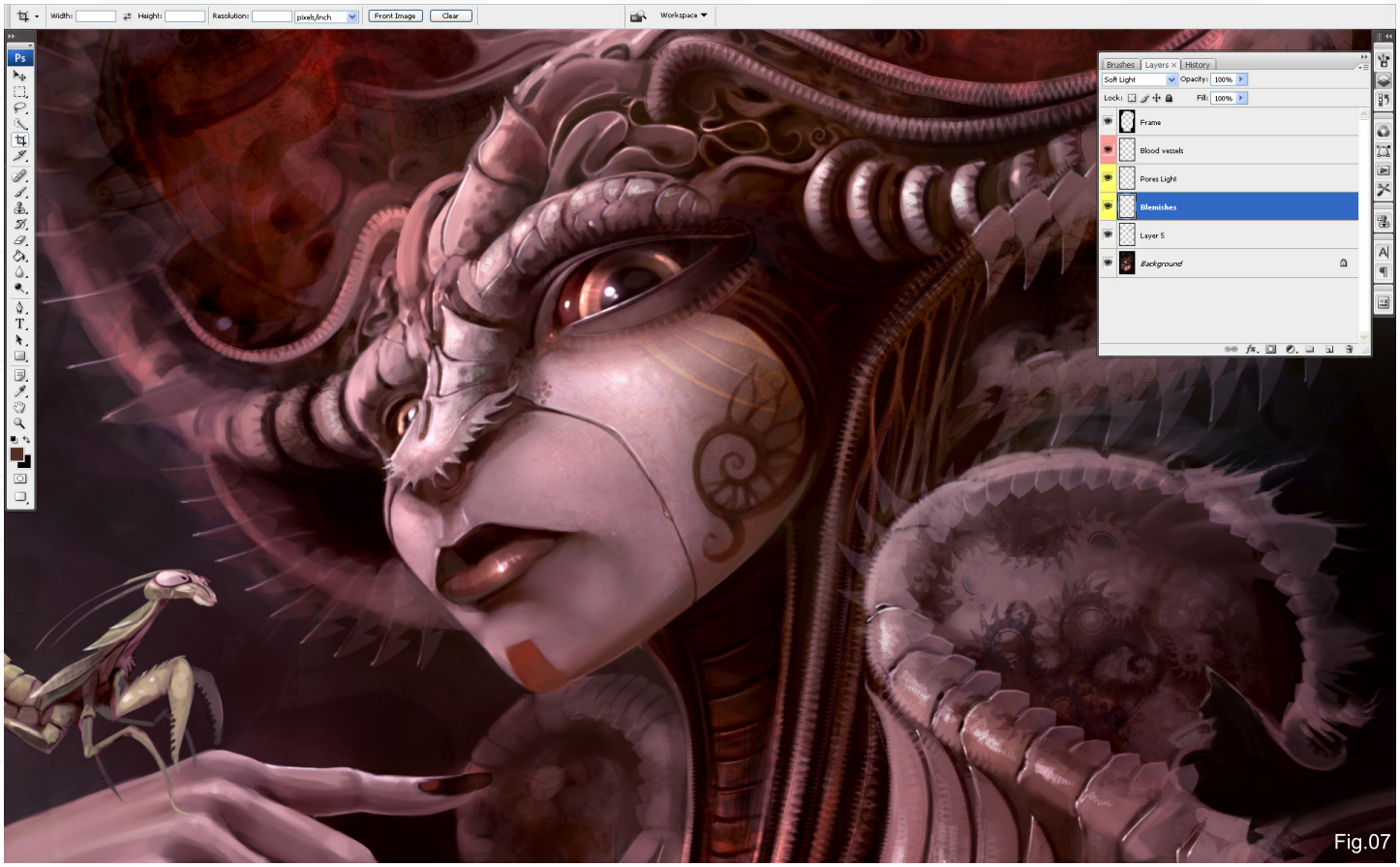


Fig.07

At this stage I settled on the form of the Queen's little companion. The Queen is so exotic that I didn't want the little praying mantis to draw too much attention away from her. I chose the archetypal praying mantis form and used the more natural green pigmentation to set him apart from the Queen.

We're on the home run now! Using a soft round brush set to overlay, I saturated the reds of the Queen a little more to make her more "punchy". I created several soft light layers over the Queen. On these I focused on adding detail to the face using speckled brushes to give the impression of skin pores and variation in pigmentation where blood vessels may run closer to the skin. It was a subtle change, but one that stopped the character looking too waxy (**Fig.07**). I flattened the image and duplicated it. On this new layer I applied a slight Gaussian Blur to soften the detail. Using a soft-edged eraser I then cut back through to the original image underneath around focal points such as the face. Softening some of the details in the periphery brings the viewer's attention right into the centre and holds it there with the glare of the beautiful, yet creepy, Mantis Queen of the Insect Dynasty (**Fig.08**)!

CUSTOM BRUSHES

In total I used approximately half a dozen patterned brushes. These ranged from simple triangles to ornate swirls inspired from tribal patterns. All these brushes were hand drawn as simple greyscale images in Photoshop, which I then defined as a brush preset. In these presets I look at factors such as shape dynamics and scattering and I experiment with these until I have a brush which I feel creates an interesting mark that I can use.

It's all about playing around and having fun; tweaking until you get the look you're searching for. It takes a bit of time, but it's worth the investment! Where viable, I want my tools to be as unique as possible. My own mark making skills helps my brushes make signature marks unique to me (**Fig.09**).

There's a lot of trial and error involved; I've spent many an hour on brushes which I've then used once or twice and then thrown away, but that's part of the process of finding what's right for you. Once you have the brush, you need to find out how to use that brush appropriately, understand how it works; is it a brush suitable for architecture for example? Or better suited

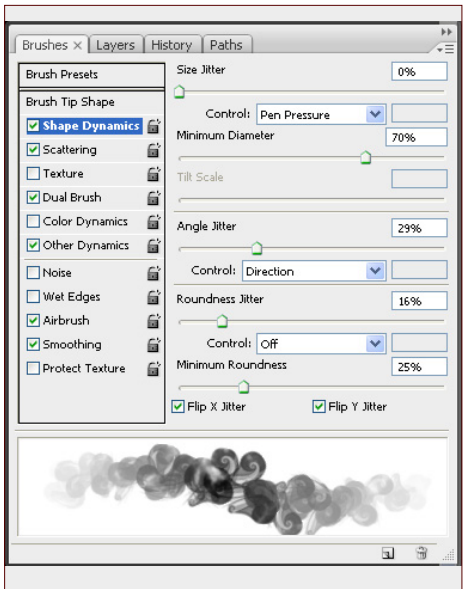


Fig.09

for foliage? It's not enough to have a huge list of brushes and not know how best to apply each of them. It's a constant leaning process. I am forever adding to and deleting from my brush set. Making your own brushes shouldn't be intimidating, it's just about getting in there, mucking around and experimenting!

NICK MILES

For more from this artist visit:
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Fig.08

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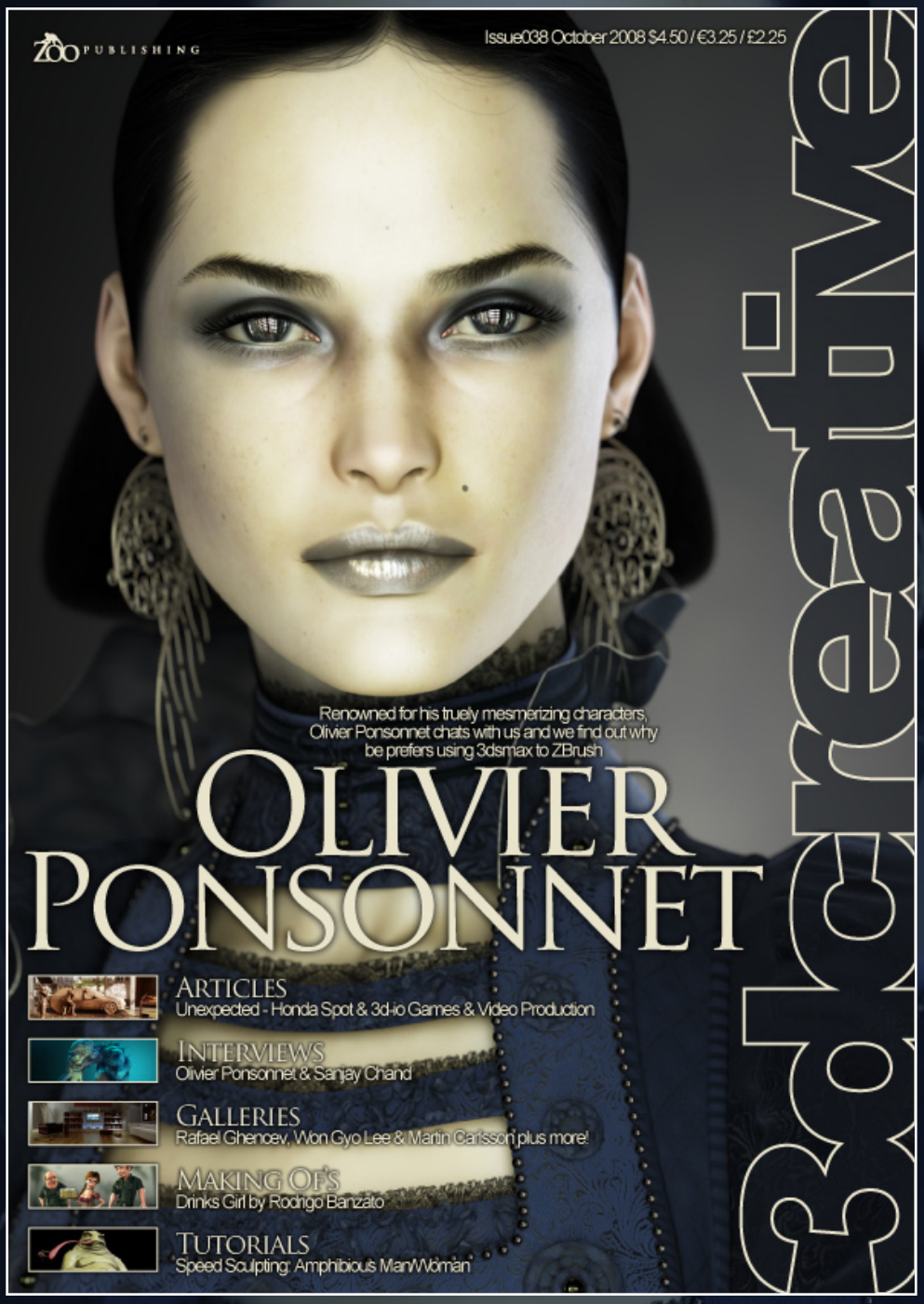


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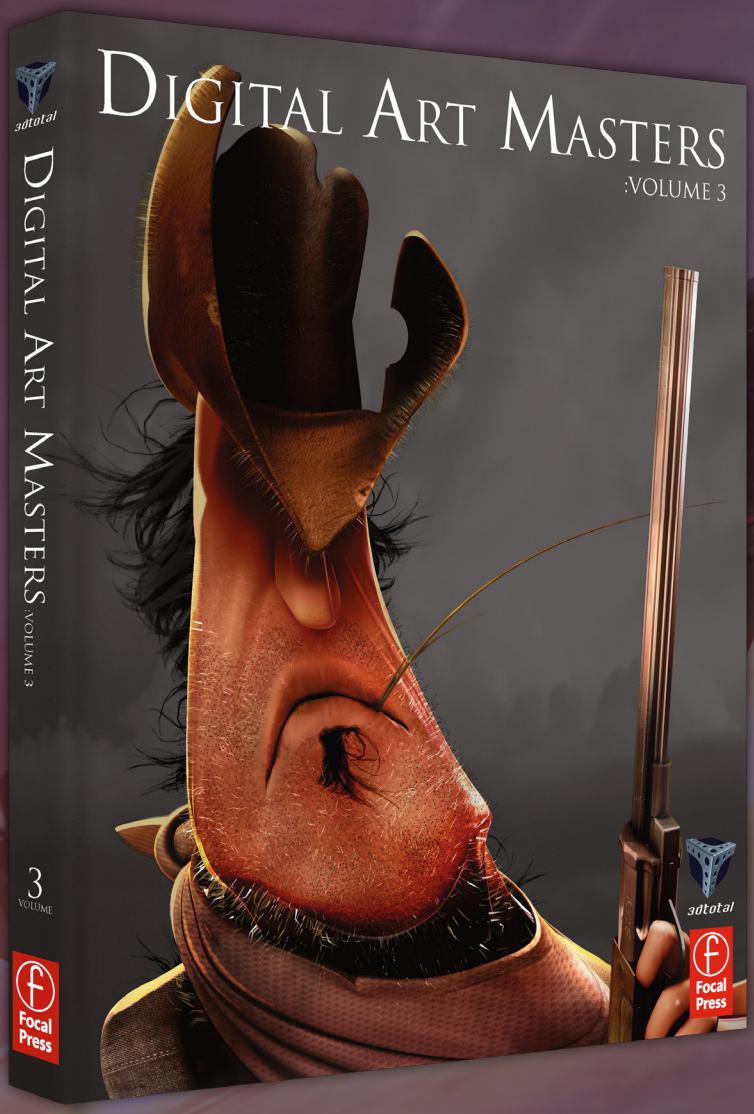
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This month we feature:

"Flight of Silverbows"
by Dr. Chee Ming Wong





The following shots of the “Flight of Silverbows” book pages are featured here in full-resolution and can be read by zooming in...

Flight of Silverbows

By Dr Chee Ming Wong



Introduction

In producing conceptual art and illustration for the entertainment industry, there is often a great deal of an iterative process that goes into the design; this includes the thoughts, philosophy and technical requirements that often accompany an art brief, which ultimately help towards making a non-existent scene believable.

Producing a Game Asset

In 2005, I signed up with Flavien Brebion (a talented VR programmer) to help produce core conceptual art and illustrations for “Infinity: The Quest For Earth”. Infinity is a space-based massively multiplayer online game in the vein of Elite/Frontier (a classic sci-fi game from the 1990s) produced by an independent group of developers. Set many thousand years in the future, it involves a complete galaxy that players can explore, colonize or fight resources for.

Most of the game uses procedural algorithms to create the universe and planets, but requires a database of artist-generated content, such as spaceships and buildings.

The first step to creating a usable in-game 3D model is to make a concept or sketch of the model. It is used as direct reference or to provide inspiration to the modeler (usually a different person than the concept artist), who subsequently produces a low-to-medium poly count 3D model. This 3D model eventually gets UV mapped and textured before it is integrated into the game.

Concept to Illustration

First, there are no hard and fast rules of how to produce a good, effective design, and evolve into the design phase and the illustrative phase.



Fig.02

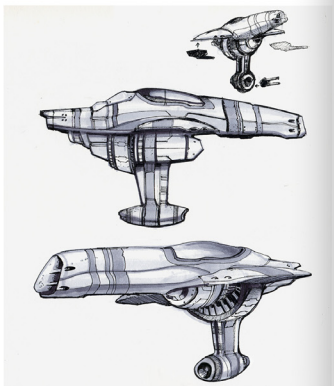


Fig.01

Within the design phase, I prefer traditional media to loosely work out the structure, form, function and aesthetic of a transport – more specifically, I enjoy sketching freehand in perspective with a Pilot Hi-Tec 0.4 pen and a thicker-nibbed G-2 0.7 pen on any paper medium.

Alternatively, exploration via digital media involves producing a variety of solid shapes, which can be used to generate a variety of segments; engine parts, gun emplacements, cowling, and various ship design shapes. This method allows for a modular approach towards building a vehicle that can have parts that integrate and swap seamlessly.

The illustrative phase is more of a methodical process, involving formal layout of composition, and represents a visual description of the concept.

Design Aspect

Inspiration can come from any source and in many forms. In this regard, the concept originated from a cross between a hairdryer shape and WW1 fighter planes. This started the concept, by building it with a central engine with a smaller ventral type fin and external thruster.

Initial transport design: In this design, I postulated that by affixing an external engine ventrally, this allowed for advantageous high-G maneuvers. As such, I explored various options and views in my sketchbook and even explored the option of mounting modular weapon placements (**Fig.01**).

Refinement of concept: From the initial sketch, I started afresh within Photoshop and produced a rapid grayscale 3/4 perspective study. This allowed for various strong shapes to be explored. If it reads as a silhouette, it has a strong initial design (**Fig.02**)!

Illustration

In considering an illustration layout, there were various things to consider. In the main, I wanted to show the Silverbow fighters in the role of an escort, and also try to illustrate the squadron in its various modular modes.

Initial layout: The initial layout shows a main hero “fighter” – this I placed as No. 2, escorting the main ship. To complicate issues further, I decided that each fighter would have its own vanishing point (to highlight the fighter’s high maneuverability) (**Fig.03**).

Blocking in: To build up an initial scene fast, one can duplicate the base underlying sketch (onto a new layer) and set it to Multiply. Rough values (approximating light falling on a cylinder) can be used to approximately produce a metallic sheen on each fighter shape. Each



Fig.03



Fig.04



Fig.05

shape can subsequently be selected and saved as an alpha channel for ease of selection in the future (**Fig.04**).

Perspective grid: The overall composition is mainly a multi-perspective illustration. The main vanishing point (VP1) is plotted on the far left. However, there are two other hidden vanishing points (with VP2 outside the canvas at one o'clock and the other VP3 at five o'clock from the center of the canvas). In addition, each fighter and transport has its own VPs (**Fig.05**).

General lighting and ambience: For the ease of illustration, each fighter has its own layer with the cloud layer separated onto the canvas. To improve the overall ambience, I separate the objects into a hierarchy of foreground, middle ground and background value (**Fig.06**).

Additional lighting: Once the basic shapes and forms are "blocked in" sufficiently and conform to the ambient lighting, the next aim is to add direct lighting, basic detailing, and diffuse color (e.g. sky blue) (**Fig.07**).

In-game asset: Here is the end result of the conceptual stage in 3D model form, where the landing gear and ventral fin stow away to the side to present a believable design and use in-game (**Fig.08**).

Final touches: The key remaining factors are to add tighter contrast, rim lights (to enhance edge believability),



Fig.06



Fig.07



Fig.08



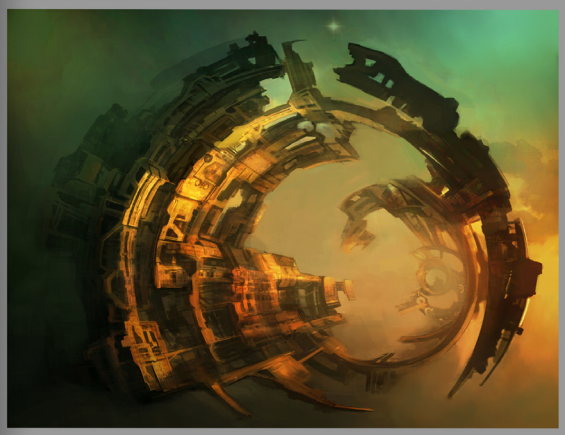
Fig.09

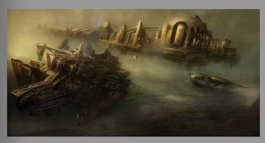
decals and signs (to simulate the feel of a working futuristic fighter. In this regard, Photoshop's transform tools came in very handy, allowing for deformation and subtle adjustment of fonts and text onto the right plane of perspective) and most importantly the fine details such as textures that enhance and confirm the believability (**Fig.09**).

And with a few final touches, the illustration is deemed to be finished at this stage.

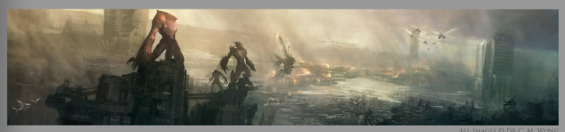
Conclusion

Throughout my core process of conceptualization and illustrating for Infinity, I have come to teach myself a wealth of conceptual design and better appreciate the basics of industrial and transport design. With every painting, it does feel as if there is never enough done to call it finished, and the same applies towards this illustration. There are various niggles and approaches I would have liked to explore, but suffice to say this piece represents a small hallmark in my continued growth as a lifelong conceptual artist.









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